European Commission

Period covered: 1 March-20 April
Issued: 27 April 2015

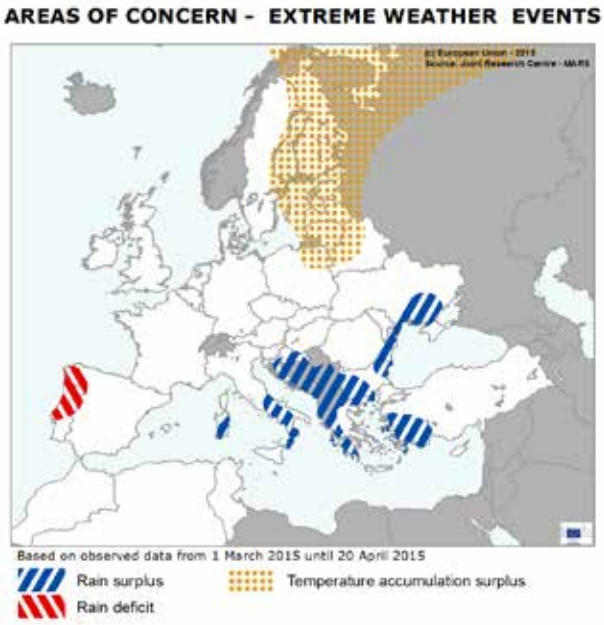
Crop monitoring in Europe

MARS Bulletin Vol. 23 No 4 (2015)

Continued positive outlook

Warmer-than-usual conditions prevailed almost everywhere in Europe during the period of review (1 March–20 April), especially over north-eastern Europe, where temperatures were more than 2 °C above the long-term average (LTA). Drier-than-usual conditions prevailed over large areas in central and western Europe, and most markedly (with precipitation less than 50 % of the LTA) in northern Portugal, north-western France, southern England and Hungary. Large areas of the Balkans, southern Spain, Ukraine and central-western Turkey were much wetter than usual.

In most regions, the weather conditions have been favourable for winter crop growth and spring sowings. Soil moisture contents are still satisfactory in the regions with rain deficits, but more rain would be welcomed now, especially in Portugal. Excessive rainfall from winter to early March in southern Bulgaria, northern Greece and the European regions of Turkey led to overly wet soil conditions, causing delays to the sowing of spring and summer crops.
Overall, the yield outlook is positive — close to, or somewhat above, the LTA.



Crop	Yied t/ha				
	2014	MARS 2015 forecasts	Avg 5yrs	%15/14	%15/5yrs
TOTAL CERERALS	5.60	**5.30**	5.24	-5.4	+1.1
Total Wheat	5.84	**5.66**	5.46	-3.2	+3.5
soft wheat	6.07	**5.89**	5.68	-3.0	+3.7
durum wheat	3.36	**3.28**	3.25	-2.4	+1.0
Total Barlay	4.89	**4.71**	4.60	-3.6	+2.5
spring barley	4.14	**4.09**	4.01	-1.2	+2.1
winter barley	5.91	**5.57**	5.42	-5.8	+2.8
Grain maize	7.93	**7.22**	7.00	-9.0	+3.0
Rye	4.22	**3.70**	3.58	-12.4	+3.5
Triticale	4.52	**4.25**	4.12	-6.0	+3.2
Other cereals	2.49	**2.37**	3.52	-4.8	-32.7
Rape and turnip rape	3.57	**3.35**	3.13	-6.4	+6.9
Potato	33.35	**32.81**	31.90	-1.6	+2.9
Sugar beet	76.06	**72.86**	70.59	+4.2	+3.2
Sunflower	2.13	**2.02**	1.92	+5.1	+5.2

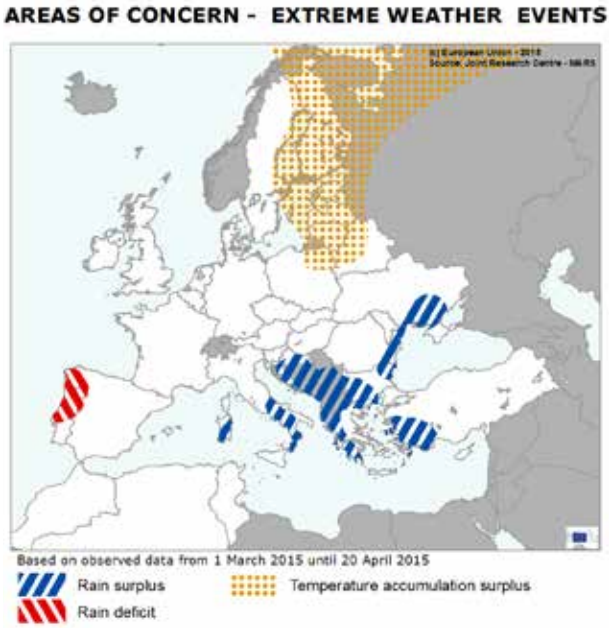
Issued: 24 April 2015

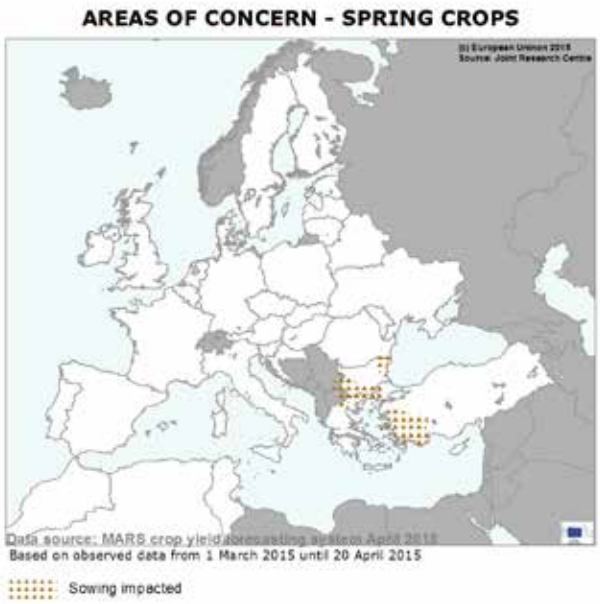
Joint Research Centre

1. Agro-meteorological overview

1.1 Areas of concern

Northern Portugal has experienced a persistent lack of precipitation since the autumn of 2014. Even though the water deficit is considerable in relative terms, crops suffered no impacts as the overall rainfall since January has generally been above 200 mm. There was surplus precipitation in the south and south-eastern regions of Europe. In southern Italy, where the growth of winter crops is usually constrained by a water deficit, abundant rains in early March led to a rain surplus which is beneficial to crop growth. However, in southern **Bulgaria**, northern **Greece** and the European regions of Turkey, excessive rainfall from winter to early March led to overly wet soil conditions. Although almost no rainfall has occurred since then, the lack of solar radiation of the past weeks precluded the soil from drying. Under these conditions, the sowing of maize in northern Greece was delayed, as was the sowing of spring crops in Bulgaria. In western **Turkey**, the excess rain recorded at the end of March led to a delay in the sowing of spring crops. The surplus of precipitation at the end of March and beginning of April in south-western **Ukraine** and the neighbouring Romanian regions had no negative impact on crops.





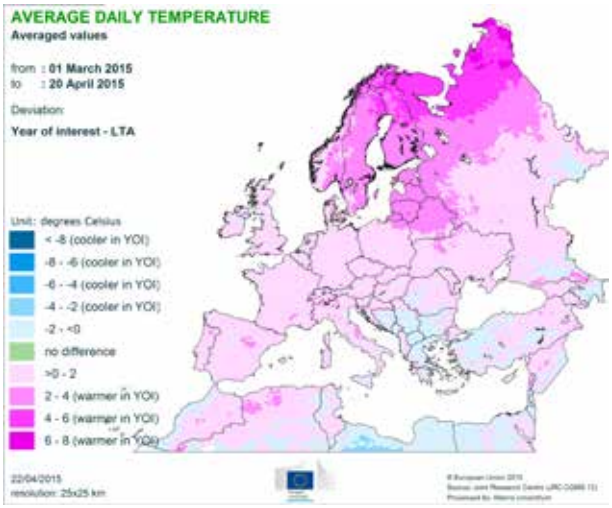
1.2 Meteorological review (1 March–20 April)

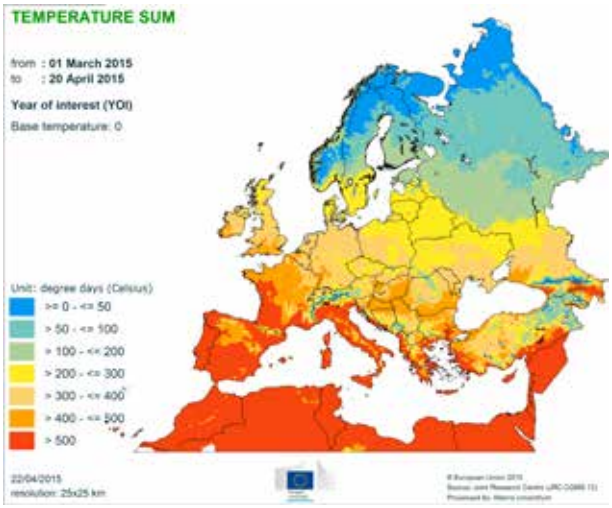
Warmer-than-usual conditions prevailed almost everywhere in Europe with anomalies (with regard to the LTA) above 2 °C across north-eastern Europe. Drier-than-usual conditions predominated over northern Portugal, north-western France, southern England and Hungary.

Observed temperatures

In the first two dekads of March, positive thermal anomalies, mainly in the range of 2 to 5 °C, prevailed over eastern Europe and areas around the Baltic Sea, while in the very northern region of Scandinavia and Russia the deviation from the average was even greater. Near- or slightly above-average temperatures were observed over western Europe, in the central part of the continent and in the western Mediterranean region, but the Balkan Peninsula remained relatively cold. In the last dekad of March, milder-than-usual thermal conditions (by 1–3 °C) were observed over a wide zone between western Russia and Italy, while south-eastern Russia and the Maghreb countries experienced below-average daily temperatures. During the first days of April, a cold air intrusion affected large parts of central and south-eastern Europe, with average temperatures ranging from 2 to 5 °C below the LTA. In these regions, frost events were detected, but absolute minimum daily temperatures did not decrease below – 5 °C. By contrast, warmer-than-usual thermal conditions reigned over the British Isles, Spain, Portugal, north-western Africa, eastern Turkey and very northern regions of Europe. In the second dekad of April, a perceptible warming affected most of the EU and the Maghreb with temperatures typically ranging between 2 and 5 °C above the climatological norm, while the south-eastern Mediterranean region, Turkey, and large parts of Russia were colder than usual.

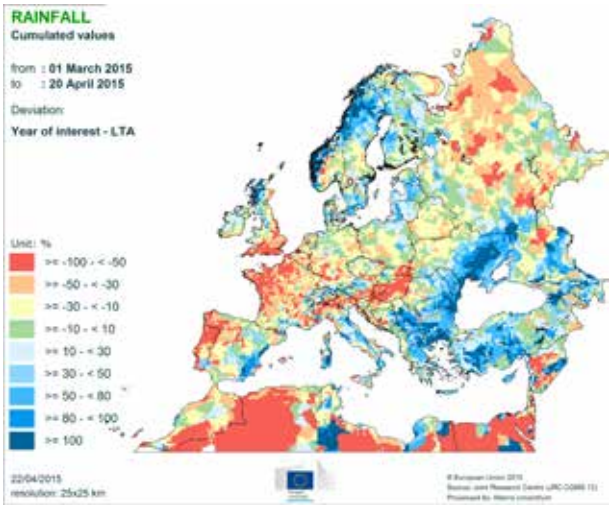
Considering the whole review period (1 March–20 April), the cumulated active temperatures (Tbase = 0 °C) exceeded the average by 50 °C or more in the Maghreb countries, the Iberian Peninsula, France, Denmark, areas around the southern basin of the Baltic Sea, Belarus and north-western Ukraine.

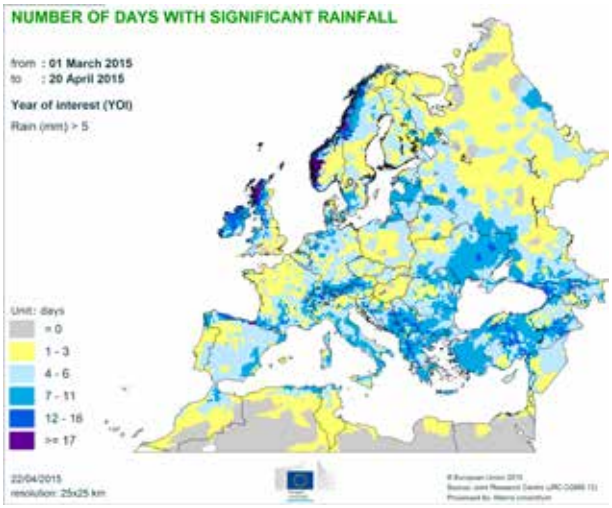




Observed precipitation

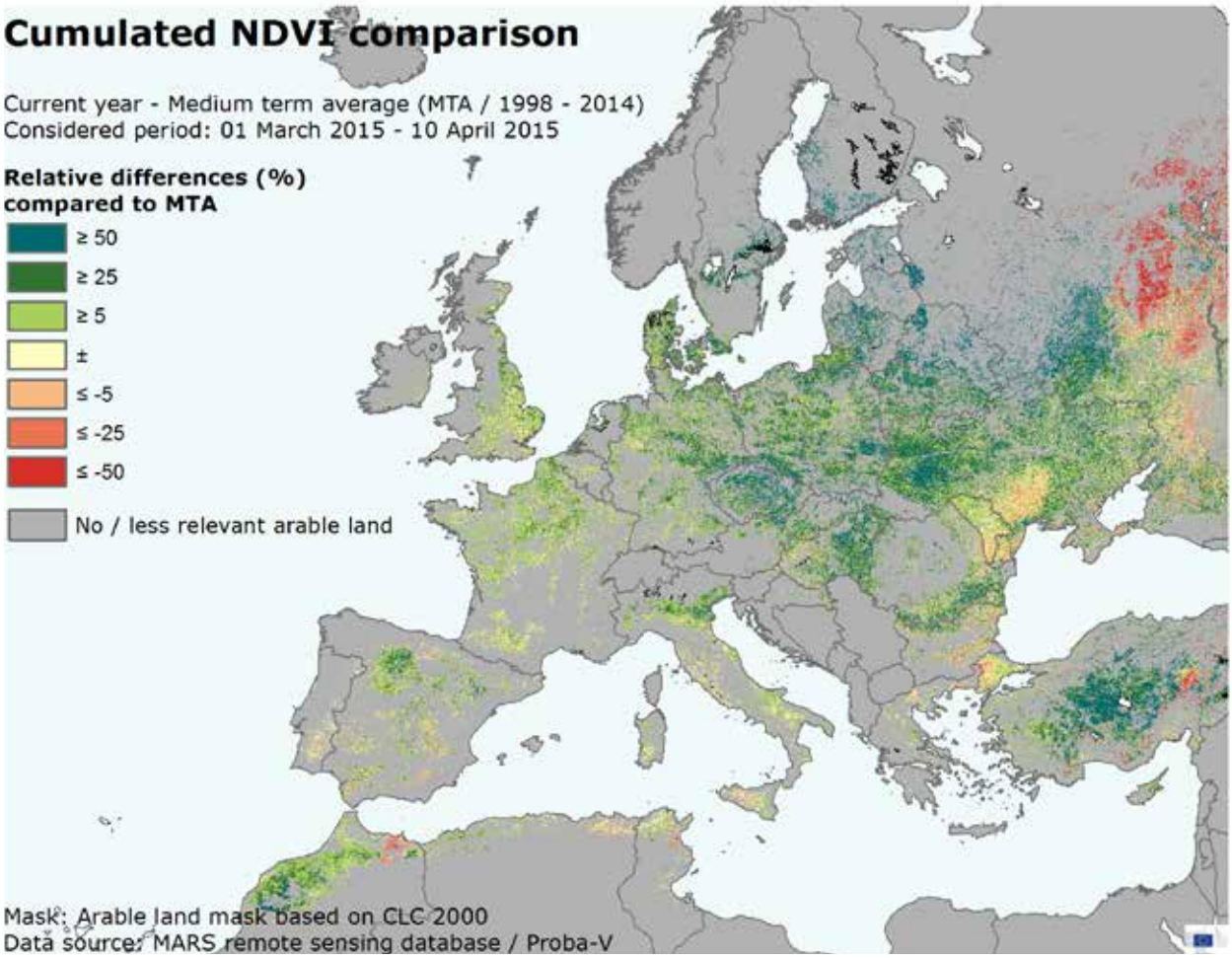
During March, drier-than-usual conditions were observed in France, southern Britain, western Spain, Portugal, northern Italy, most of Austria, Hungary, Belarus and Russia. Precipitation was abundant in Scandinavia, Scotland, the eastern half of Spain, Sardinia, the Apennines and the Balkan Peninsula, Romania and further eastward in Ukraine and Turkey, exceeding the LTA by 25 mm at least. Precipitation decreased in the first two dekads of April in the EU, but rains in eastern Europe compensated for the dry March. Up until the end of the period under review, April precipitation remained significantly below the average (at least by 20 mm) in the southern regions of the United Kingdom, France, northern Spain, Italy, Hungary, the western Balkan Peninsula, southern Turkey and along the south-western Mediterranean coast. By contrast, cumulated rainfall exceeded the average by more than 50 mm over western Norway, south-eastern Ukraine and some areas in southern Russia. Considering the period as a whole, excessively wet conditions (double to triple the LTA) are expected to have negatively affected crop management in parts of Bulgaria, northern Greece, eastern Romania, southern Italy, western Turkey, and southern and eastern Ukraine.





2. Remote sensing — Observed canopy conditions

Good canopy conditions in the main European arable land areas



The map displays the observed cumulated values of NDVI (normalised difference vegetation index) from the beginning of March to 10 April compared to the medium-term average (MTA) in 1998–2014. In **Spain**, the main arable land regions show very positive NDVI anomalies. Here, the development of winter crops remains slightly advanced. Canopy growth in southern Spain and **Portugal** proceeds under slightly suboptimal conditions because of the lack of precipitation over the past months. Here, the rains of April were beneficial; nevertheless, crops remain in a fragile condition and more rain will be needed to sustain crop growth through the yield formation stage, especially in southern Portugal. The northern regions of **Italy** benefitted from the mild winter, and crops are slightly advanced in development. In southern Italy, the situation is slightly different, with a colder-than-usual spring that led to a slowdown in the canopy development of durum wheat. In **France**, favourable weather conditions determined very good development of winter crops biomass and were optimal for the sowing of spring crops. In **central and northern Europe**, the winter crops present advanced development, especially in the **Baltic countries** where winter and spring were particularly mild this year. In **Bulgaria**, winter crop conditions are suboptimal due to the excessive soil moisture of the past two months; the sowing of spring crops was delayed for the same reason. A similar situation is observed in the neighbouring regions of **Greece** and **Turkey**, where the sowing of maize is strongly delayed. The growth of winter crops in Asian Turkey started earlier than usual, under optimal conditions. In **Ukraine**, winter crop development is advanced and canopy vigour is stronger than usual in almost all the winter-wheat-growing regions.

3. Country headlines

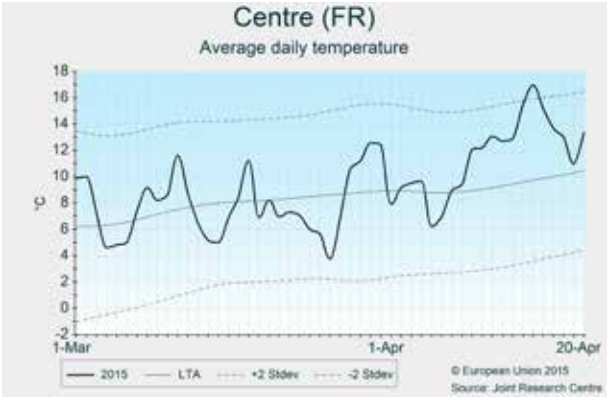
3.1 European Union

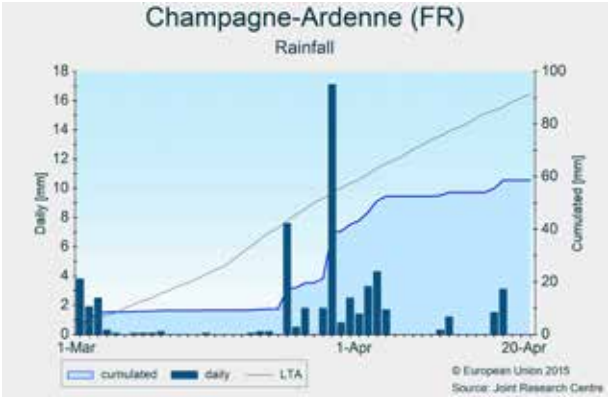
France

Excellent start to the season

Crops have benefitted from very good meteorological conditions since the start of the season and the outlook is positive. Winter and spring cereals are slightly advanced. Rainfall, however, has been below average; rain will be needed to maintain the positive outlook.

While temperatures were mild and oscillated around the average in March, they rose to significantly above average after 7 April. Only a few significant rainfall events have been recorded since 1 March, during the end of March and the beginning of April. In the north-western regions, from Pays de la Loire to Nord-Pas-de-Calais, cumulated rainfall over the review period is less than 50 % of the LTA. In the south-west, rainfall is close to the average (Midi-Pyrénées and Languedoc-Roussillon). The predominantly mild temperatures created good conditions for crop development and accelerated growth, particularly in the northern half of the country where sunny weather prevailed. The development of winter and spring cereals is now advanced and close to last year's levels. Until now, the low levels of precipitation have not been problematic, but rainfall is needed to maintain the positive outlook and to ensure good conditions for the emergence of summer crops.



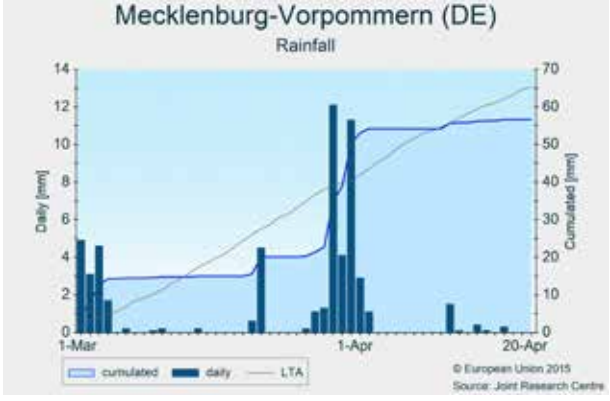


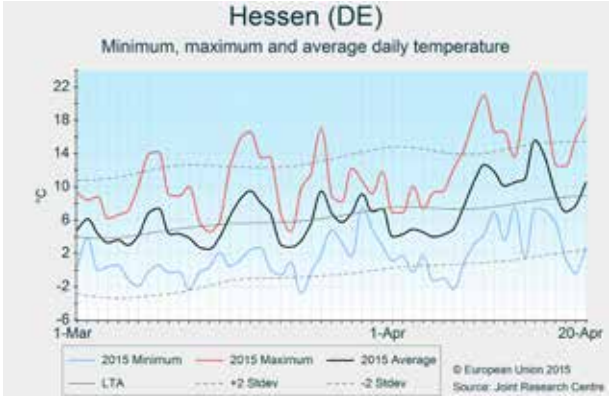
Germany

Favourable conditions

Weather conditions from March to mid-April were favourable, but more rain is now needed. Crop growth is mostly average and so far good yields are expected.

Crop growth conditions continue to be generally favourable. On average, temperatures in March corresponded to the climatological norm, with eastern Germany a bit milder than the western part of the country. Only mild frosts occurred and maximum temperatures fluctuated between 15 and 20 °C. Precipitation was scarce to very scarce during most of March, but abundant rainfall set in for a couple of consecutive days towards the end of the month, replenishing soil moisture and providing good growing conditions. However, there has been practically no rainfall since, and the overall climatic water balance for the period under review is slightly negative. Temperatures remained close to average in early April but peaked high towards the middle of the month (to above 25 °C in some areas), boosting crop growth. Crops are slightly delayed in the south-west and average or slightly advanced in the north-east. More rainfall is now needed to maintain soil moisture above critical levels, and considerable amounts of rain are forecast for the south-west in the coming days. No irregularities have yet been detected from the crop model simulations and the yield outlook is favourable.



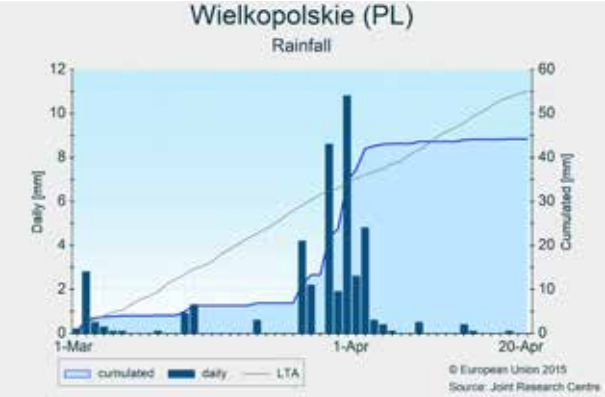


Poland

Favourable conditions in a slightly advanced season

The above-average temperatures observed this winter continued into March. Rainfall remained below average during March and significant rainfall was only observed at the end of March and the beginning of April. Surface soils are drying out again and rainfall would be beneficial in the coming days, particularly for spring crops.

Since 1 March, temperatures have stayed 1 to 2.5 °C above the LTA. The greatest anomalies were observed in the north-east of the country. Maximum temperatures reached 22 °C in the western regions at the end of March, before dropping slightly below the average. Rainfall was insignificant until the onset of a rainy episode at the end of March, which brought cumulated rainfall back up to the LTA. Between 30 and 45 mm of rain were recorded between 26 March and 7 April. Cumulated solar radiation is above average in the southern half of the country. As a consequence of the mild temperatures, the development of winter crops is slightly advanced. The few rainfall events in March, combined with the mild temperatures, were favourable to the early sowing of spring crops. Rainfall over the coming days would help sustain good growth, especially for spring crops that were sown after the first dekad of April. The yield outlook is favourable for all crops, as agro-meteorological conditions thus far have not limited crop growth.



United Kingdom and Ireland

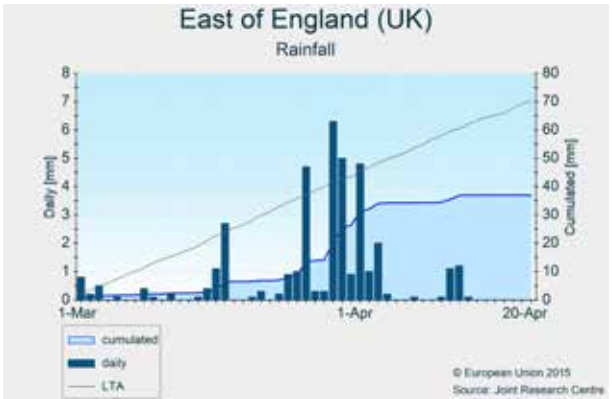
Favourable conditions prevail

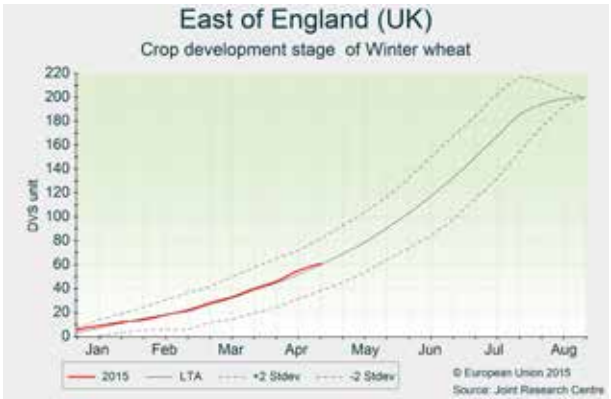
Predominantly mild and relatively dry weather provided good conditions for the development of winter crops and for the sowing of spring crops in the main crop-producing areas, thus providing a positive yield outlook for both countries. Rainfall would be welcomed in the southern area of the United Kingdom.

The period under review (1 March–20 April) presented fairly uniform weather patterns across the British Isles. Temperature conditions tended to be around or slightly below average in March and above average in April. Frosts, if they occurred, were mild, with temperatures not dropping below – 4 °C.

Rainfall was below average in the main agricultural areas of southern Ireland and southern and eastern Britain. Above-average rainfall was recorded in the northern half of Ireland and western Britain, and particularly in Scotland. Rainfall tended to be concentrated in the period from 23 March to 3 April. Britain's south-eastern regions registered little or no significant rainfall beyond this period.

Overall, these weather conditions have been favourable for the main crop-producing areas in both regions. The warm and sunny conditions prevailing in April were particularly beneficial to boost crop growth and development. In Britain, winter crops are slightly advanced and our models indicate that canopy development and biomass accumulation are well above average. In Ireland, crops are slightly behind but are recovering well from the less favourable, colder-than-usual end of winter and early spring. Overall, weather conditions enabled farmers to conduct timely field operations and the spring sowing campaigns are well advanced. Soil water levels in Britain's important south-eastern crop areas are well below average, though still above critical levels. Rain would be welcomed there to support continued high growth rates.





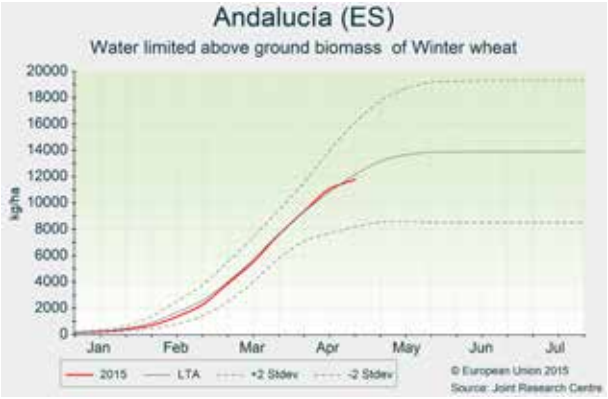
Spain and Portugal

Average conditions for winter crops

April was warmer than usual after a rather chilly second half of March. Precipitation was around average in March–April, except in some regions in the north-west which were drier than usual. The current outlook is for average winter crop yields, but yield potentials will be determined by rainfall in the remainder of April and May.

Temperatures have been quite variable during the past two months in the Iberian Peninsula. While March (especially the second half) was substantially cooler than usual, a general temperature increase was registered in April. For instance, daily averages rose to 14 °C in Castilla y León during the first days of April, which is unusually warm for that time of the year. Cumulated precipitation over the period of review was close to the LTA. As the first quarter of the year was quite dry in most regions, the abundant rainfall registered during the end of March in the eastern half of the Peninsula and during the second week of April in the south-west was crucial to reaching near-seasonal soil moisture levels.

Favoured by the warm conditions observed in April, the development of winter cereals is progressing adequately, with wheat and barley completing the heading phase in northern regions, whereas in the south they have just started flowering. The rainfall registered at the end of March and April helped maintain average crop growth rates. The yield outlook is currently average for both crops, but more rainfall is needed during the second half of April, especially in Castilla y León, Andalucía and Alentejo, in order to avoid drought constraints in the event of continued warm weather conditions.



Italy

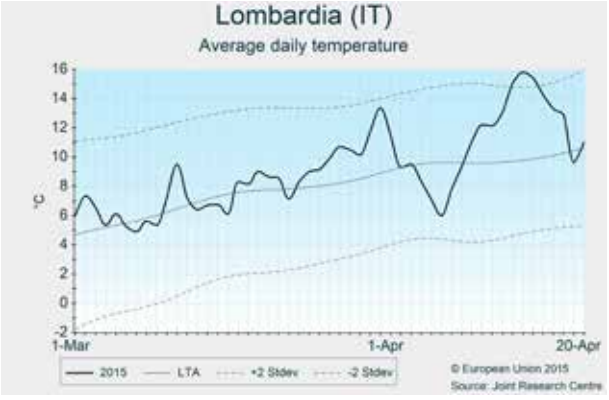
Favourable conditions for crop growth

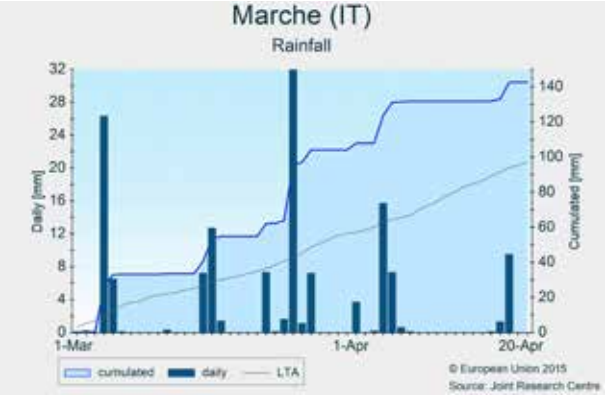
The period under review was characterised by relatively warm temperatures in the north and rainy conditions in central and southern Italy. So far, the yield outlook for winter crops is good.

After a mild winter across the country, temperatures from 1 March to 20 April were above the LTA in northern Italy and close to average in the central and southern provinces. Thermal sums remain considerably above average across the country with the exception of Sicilia and some areas of Puglia and Sardegna, where cumulated temperatures since 1 January have been close to average.

During the review period, cumulated precipitation was about 30 % below the LTA in north-western Italy, close to average in the north-east and above average in the rest of the country. Cumulated rainfall in Marche, Abruzzo, Calabria, Sardegna and some other regions exceeded the LTA by 40 mm or more. These meteorological conditions increased soil water reserves but hampered crop management in some cases.

Favourable thermal conditions boosted winter wheat and barley development, which is at the end of the heading stage in northern regions, whereas the flowering stage is starting in central and southern Italy. Rapeseed is mostly at the flowering stage, presenting a significant phenological advance. The overall outlook for the current season is positive. The forecast yield for winter crops is close to the five-year average, but weather conditions during the next month will be crucial.





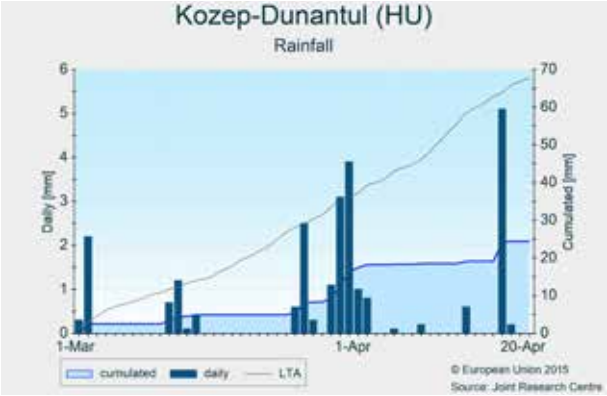
Hungary

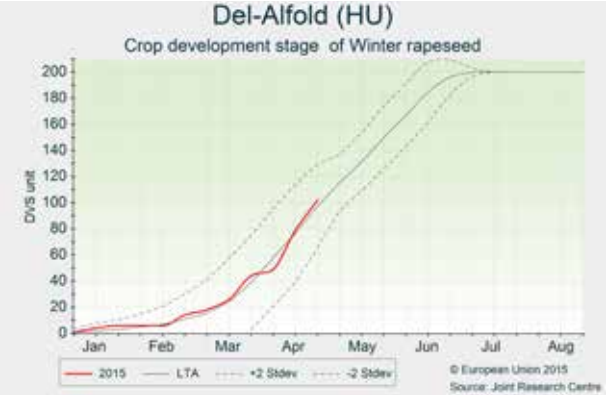
Favourable dry conditions for the spring sowing campaign

Weather conditions were characterised by predominantly near-average temperatures and below-average rainfall. The soil conditions were adequate for the sowing of spring crops, but some rain would be beneficial for sprouting and emergence. Winter crops will also benefit from more water as temperatures and plant activity increase.

Thermal conditions were near average over the whole review period (1 March-20 April). The first dekad of April was much colder than usual, but temperatures mostly exceeded the LTA in the last dekad of March and in the second dekad of April, facilitating crop development. Significant frost events occurred in early April and around 19 April, but daily minima remained above – 5 °C and so had no significant negative effect on field crops. Since the beginning of March, precipitation has been sparse and total rainfall is less than half the LTA. The dry weather both provided good conditions for field preparations and the sowing of spring barley and sugar beet, and helped to mitigate the problems caused by the water logging reported in the previous bulletin. The warm soil facilitated the sowing of maize and sunflowers, which got underway in the second dekad of April.

Crop development is advanced by 5–10 days in the eastern half of Hungary and normal in the rest of the country. The warm weather of mid-April boosted the growth of winter crops, but biomass accumulation and leaf area expansion are still slightly below the seasonal average. The yield forecast for winter crops is close to or just below the trend. The water supply conditions during the coming month and a half will be crucial for yield formation.





Romania

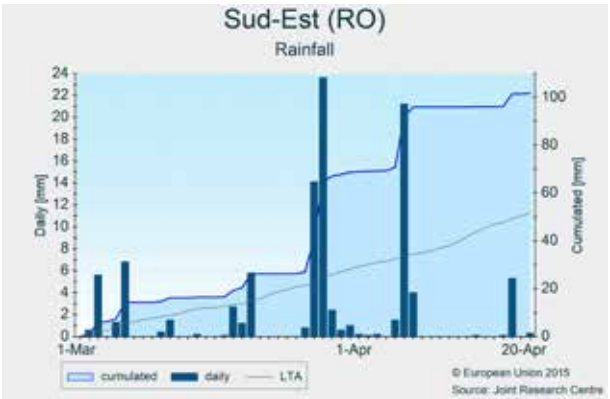
Generally good winter crop conditions

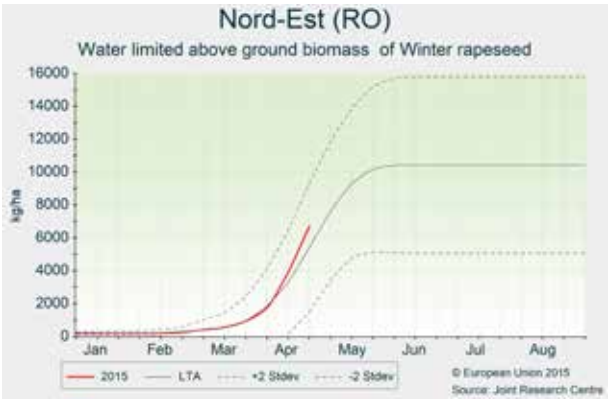
Temperatures fluctuated around the LTA. Precipitation was plentiful over the eastern half of the country, but sparse in western regions. Winter crops are in good shape. The sowing of spring crops may suffer some delay due to wet soils in eastern areas.

Daily temperatures were close to the LTA in the first half of March, then fell for a short period, after which they increased to above-average values in the third dekad of March. The first days of April were colder than usual, followed by another increase in temperatures to well above the LTA.

Abundant precipitation occurred in Sud-Est, Sud-Muntenia and Nord-Est, where cumulated rainfall over the review period reached 80–120 mm. By contrast, the western and central regions of the country registered only 40–60 mm rainfall during this period. These drier weather conditions mitigated the waterlogging problems in south-western Romania, which were mentioned in the previous bulletin. In eastern areas, however, some fields with heavy clay or poorly drained soils may be affected by waterlogging. Due to the overly wet conditions, the sowing of spring crops, maize and sunflowers may be temporarily suspended mainly in the eastern and south-eastern regions of Romania. The mild winter and rainy spring conditions were favourable to winter crops, but also to the survival of pests. The pest pressure is therefore considerable.

Crop model simulations depict a positive outlook. The biomass accumulation of winter cereals, and particularly of oilseed rape, is above average and crop canopy development is also very promising. The yield forecast made according to scenario analysis was revised slightly upwards.



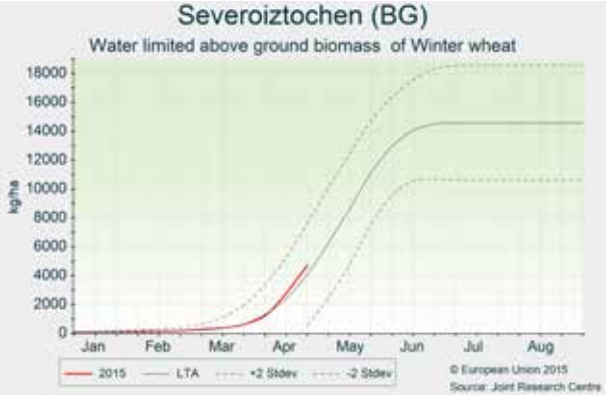


Bulgaria

Persistent wet conditions

Bulgaria experienced a particularly wet start to spring, which caused losses in winter crops and hampered the sowing of spring and summer crops.

Colder-than-usual thermal conditions were typical in Yugozapaden and the southern part of Yuzhen Tsentralen regions. Only some smaller eastern areas experienced a slight positive thermal anomaly over the period of review. Temperatures increased markedly in the second dekad of April, with daily temperatures exceeding the average by 3–5 °C. After abundant — locally excessive — winter rains, the wet weather continued throughout the period of review. Total precipitation since 1 March has typically reached 100–150 mm, but exceeded 150 mm in some areas of Severoiztochen and 200 mm in Yuzhen Tsentralen. Rainfall levels decreased after 7 April, but soil conditions improved only slowly. The extreme wet weather is likely to have caused serious damage in southern, western and north-eastern Bulgaria, with a high probability of losses (area reduction) in winter crops due to prolonged waterlogging. However, winter wheat crops in areas that are not affected by water logging are in good condition. The wet soil conditions also caused substantial delays to the spring sowing campaign, but current conditions are favourable for emergence and growth of crops once sown.



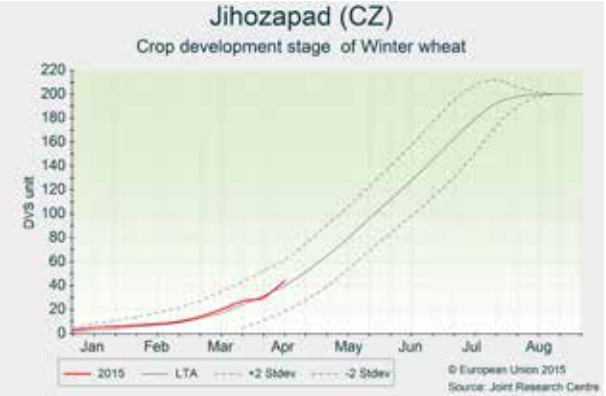
Austria, Slovakia and the Czech Republic

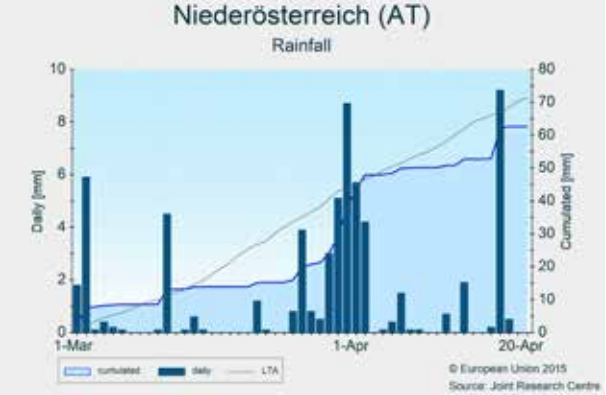
Winter crops in good condition

Warmer-than-usual conditions prevailed over most agricultural areas. Winter crops are in good condition, but are beginning to be affected by the dry conditions prevailing in eastern and southern Austria and eastern Slovakia.

March was characterised by warmer-than-usual weather conditions, with air temperatures up to 2 °C above the LTA. April started with a cold air intrusion into the region, which lowered the air temperature down to 4 °C below the LTA. According to our simulations, no frost-kill damage occurred as minimum temperatures in general remained above – 5 °C in the agricultural areas. Significantly warmer-than-seasonal weather conditions continued during the second dekad of April, compensating for the slower winter crop development during the preceding dekad. Below-average rainfall was observed during the analysis period in eastern and southern Austria and eastern Slovakia, leading to a soil water deficit in these regions. The sowing of summer crops is already ongoing across the region due to warm and relatively dry conditions after the beginning of April.

Winter crops are generally in good condition. A good yield potential can be expected if the soil moisture levels are not further depleted in the coming dekads. Winter crop yields are forecast to be close to the five-year average, but with a large margin of uncertainty, as it is still very early in the season. Their yield potential will be determined mainly by the weather conditions during the coming month, when the most sensitive growth stages occur.



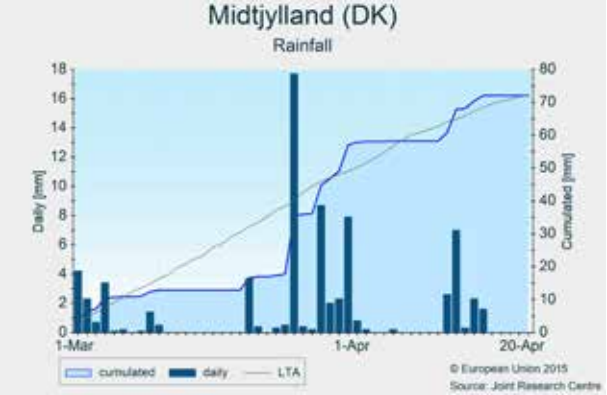


Denmark and Sweden

Favourable conditions for crop growth

This spring presented warmer-than-usual temperature conditions, while rainfall was below average. Advanced crop development and recent biomass increase lead to a positive outlook for crop production.

This period was characterised by predominantly positive temperature anomalies, including some unusually warm days in March in both countries. Maximum temperatures reached 11–13 °C in southern Sweden and 12 °C in Denmark. Active temperature sums over this period exceeded the LTA by up to 100 °C in some areas of Sweden. Rainfall was mainly concentrated in short periods at the beginning and the end of March in both countries. Consequently, cumulative solar radiation is somewhat higher than the LTA. The warm and sunny conditions during this period have therefore positively influenced the growth and development of winter crops in both countries. Crop development is particularly advanced in Sweden in Småland med öarna and Östra Mellansverige. These regions have also presented a sharp increase in winter crops' biomass accumulation since the end of March. Additional rainfall during the last part of April will be needed to maintain crop growth and beneficial conditions for the sowing of summer crops. The current yield forecast is based on statistical trends and scenario analysis.

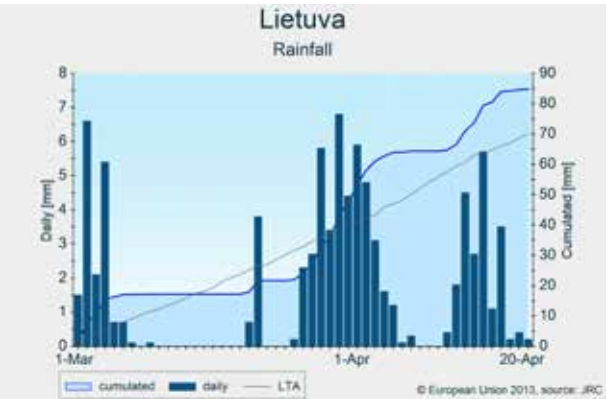


Finland, Lithuania, Latvia and Estonia

Promising outlook for winter crops

After a mild winter, warm temperatures during early spring and substantial precipitation in April have provided optimal conditions for winter crops.

Between 1 and 20 March, temperatures remained 3 to 4 °C above the LTA throughout the region and fluctuated above seasonal values during the last dekad of the month. Global radiation was also above average during this period. Temperatures decreased to seasonal values during the first dekad of April, which was subsequently followed by a return to warmer conditions. As a consequence, accumulated temperatures for the review period as a whole (1 March–20 April) are well above average. These warm weather conditions created a good environment for the accelerated growth and development of winter crops, as confirmed by above-average satellite remote sensing fraction of absorbed photosynthetically active radiation (FAPAR) estimates. These favourable thermal conditions for growth were accompanied by dry conditions during the first two dekads of March, which were compensated by plentiful rainfall (moderate in Finland) during the last dekad of March and the first dekad of April. A second rainy period was recorded in the Baltic countries in the last days of the period, which ensured a good soil water supply. Abundant rainfall, especially in Lithuania, hampered field activities (fertilisation, spring crops sowing) to some extent, but no significant negative consequences are expected. While winter crops are in good condition overall and their yield outlook is promising, it is still too early to revise the forecast made in the previous bulletin based on trend and the five-year average values.



Belgium, the Netherlands and Luxembourg

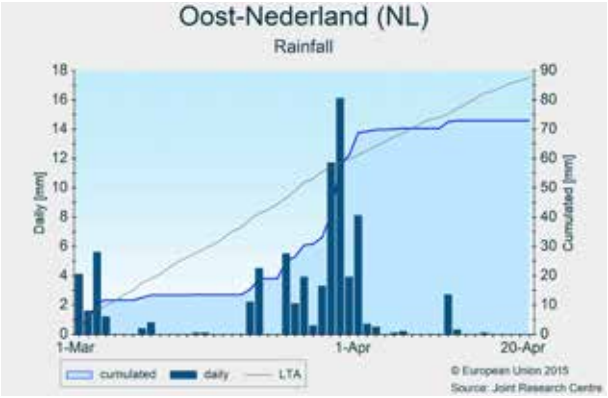
Mild and sunny

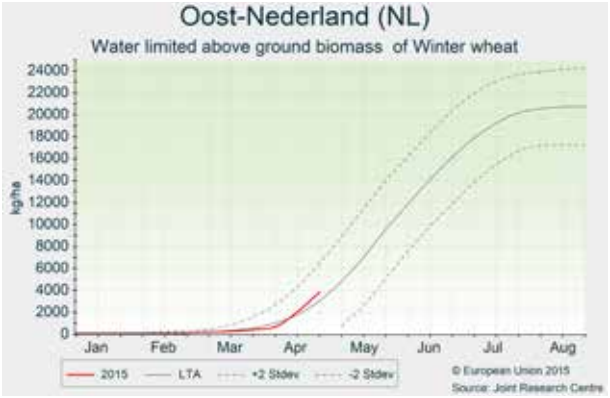
Predominantly mild and relatively dry weather provided good conditions for winter crops. Spring sowings encountered some problems due to dry topsoil. The yield outlook for the three countries is positive.

Temperatures during the period of review (1 March–20 April) presented large fluctuations, with predominantly below-average values from about 20 March to 8 April and above-average values before and especially after this period. Minimum daily values remained above – 4 °C. The peak maxima occurred on 15 April, reaching about 25 °C in inland areas.

Rainfall was below average in all three countries, with the exception of the central-eastern parts of the Netherlands where it was around average. Throughout the region, precipitation was concentrated in the period from 20 March to about 3 April, in addition to the first few days of March and occasional minor rainfall events later in April.

Overall, these weather conditions have been favourable for winter crops. The warm and sunny conditions prevailing in April were particularly beneficial to crop growth. According to our models, crop development closely follows the seasonal trend, and simulated leaf area and biomass, which had been lagging behind, are now near average or slightly above average. The long periods of dry weather facilitated access to fields, but spring sowings were interrupted in several places in March due to overly dry seedbeds, especially on light-textured soils, and could only be resumed after the rainy period in the beginning of April. Fields were locally resown due to crusting.





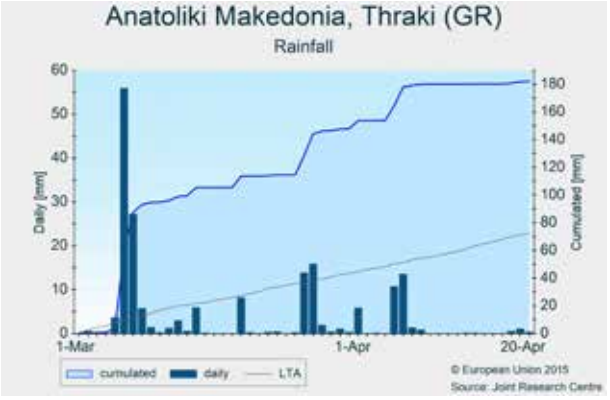
Greece and Cyprus

Positive outlook for winter cereals; delays in the sowing of spring crops

In Greece, colder-than-usual and wet conditions dominated the period from 1 March to 20 April. Abundant rainfall caused delays to the sowing of spring crops, mainly maize. Temperatures in Cyprus were mainly above average and rains around mid-March replenished soil moisture. The outlook for winter cereals is positive for both countries.

March and the first half of April were colder than usual in Greece. Average daily temperatures fluctuated below the LTA from 5 March, except for the first two days of April when temperatures were slightly above average. March 2015 has been among the five coldest since 1975 in the areas of Central and West Macedonia. Cumulated precipitation values were far above the LTA in the whole country, with even the southern parts of the country (e.g. Peloponnese, Crete) receiving significant amounts of water. However, in northern Greece, the combination of precipitation and snowfall at the end of March and the beginning of April led to some floods, mainly in the area of Serres, which affected some riverside fields. The aforementioned cold and wet conditions hampered field accessibility in central-northern areas, which consequently led to delays in the sowing of spring crops, such as grain maize, which started only after the first dekad of April.

In Cyprus, temperatures were mainly above average, except for a short period from 9 to 15 April when they dropped to below-average. Cumulated rainfall values were above average, mainly because of some rainy days around mid-March. These rainfall events came at a crucial development stage for winter barley in Cyprus and had a positive impact on the crop. Generally, the outlook for winter cereals is positive for both countries.



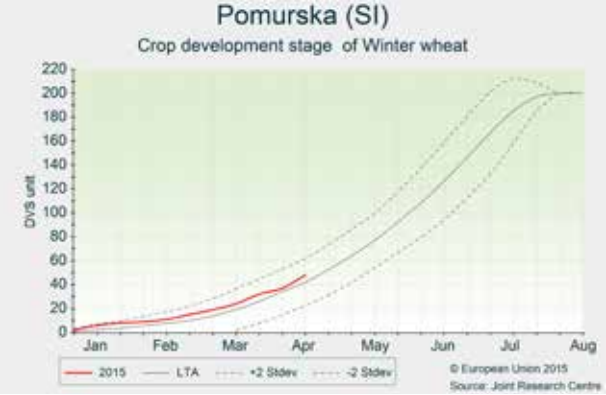
Slovenia and Croatia

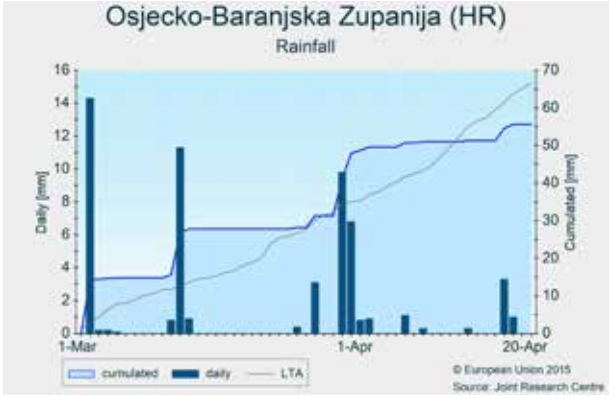
Favourable conditions for the sowing of summer crops; rain would be welcomed

Drier and warmer-than-usual conditions prevailed during the period of review. Lack of soil moisture in north-eastern Slovenia and northern Croatia is starting to affect winter crops.

Warmer-than-usual temperatures were recorded in March, with average daily temperatures exceeding the LTA by 2 °C. A cold air intrusion during the first dekad of April caused air temperatures to drop to 4 °C below the LTA. This situation changed during the second dekad of April, when significantly warmer-than-seasonal weather was observed. The rainfall situation during March presented marked contrasts: eastern Croatia and western Slovenia experienced wetter-than-usual conditions, whereas north-eastern Slovenia and northern Croatia remained drier than usual. The first two dekads in April were characterised by a rainfall deficit in both countries, with the greatest anomalies recorded over western Slovenia.

The sowing of summer crops is advanced due to the warm weather conditions and drier-than-usual soils during the second dekad of April. Given these favourable conditions, the development of winter crops is slightly advanced. They are generally in a good state, but are beginning to be affected by a soil moisture deficit, especially over north-eastern Slovenia and northern Croatia. The current yield forecast for winter crops is close to or slightly above the five-year average, but yields will greatly depend on the weather situation over the coming months.





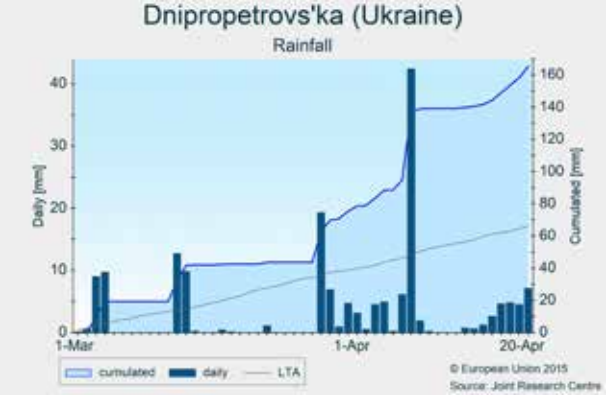
3.2 Black Sea area

Ukraine

Mostly favourable conditions

Above-average temperatures have prevailed since 1 March, particularly in north-western Ukraine. Rainfall levels were near average in the north-west and well above average in the southern and eastern regions. The yield outlook for winter and spring cereals is positive.

Since 1 March, temperatures have been above average, with anomalies varying from 1 °C in southern Ukraine to 2.5 °C in the north-western part of the country. Rainfall levels were near average throughout the country until the end of March, but the last dekad of March and the first dekad of April were marked by heavy rainfall in the southern and eastern parts of the country. There were records of 42 mm of rain in one day in the Dnipropetroves'ka Oblast during the first dekad of April. The substantial rainfall levels are beneficial as they help replenish the soil water reserves before the flowering and grain-filling of winter cereals in the most productive regions. Locally, however, overly wet conditions may have caused damage to crops. Excess water may also have delayed the late sowings of spring cereals locally. The mild temperatures accelerated the development of crops and were favourable to the early sowing of spring cereals. The yield outlook for winter wheat is positive following the trend, though below last year's record high due to the dry conditions in autumn, some frost kill impact and the latest intense rainfall events.

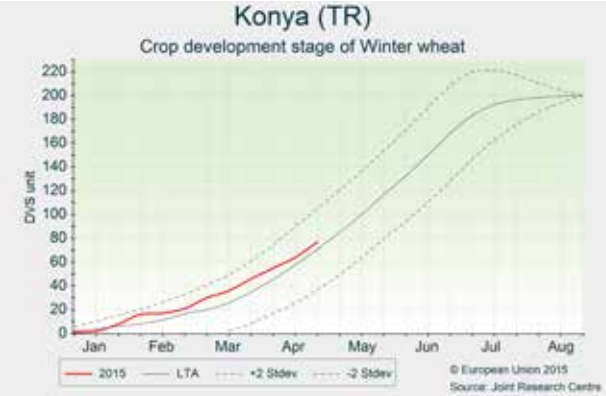


Turkey

Wet start to spring leads to positive outlook for winter cereals

March 2015 has been among the rainiest since 1977 in central-western and central-southern areas of the country. Temperatures were around average. Winter crops are progressing well and the sowing of grain maize is almost completed.

From 1 March to 20 April, temperatures fluctuated around the LTA. The temperature sum for this period was slightly below the LTA in central-western areas and slightly above in the eastern areas. The whole country received abundant rainfall, especially during March. More specifically, this March proved to be the rainiest in our database (i.e. since 1977) for the areas of Adana, Aydın, Kırıkkale, and the second rainiest for the areas of Manisa, Konya, Antalya and Hatay Province. These areas were among those that suffered most from dry conditions in 2014. Dry periods and gradually increasing temperatures in April allowed farmers to complete the sowing of spring crops, especially grain maize. The soil moisture levels for winter cereals are simulated to be mainly above-average, but are progressively approaching average levels. The crop development of winter cereals is simulated to be slightly advanced and the yield outlook is positive.



3.3 European Russia and Belarus

European Russia

Beneficial rains in April

Favourable rains arrived in southern Russia after a mild and dry March. Crop development is slightly advanced. Leaf area and biomass are above average in the areas near the Black Sea, but below average elsewhere.

After a mild February, warmer-than-usual weather conditions continued in March in European Russia. The thermal anomaly remained in the range of 1–2 °C in southern areas, while reaching 3–4 °C in central regions. In April, daily temperatures fluctuated around the LTA in the main agricultural regions or slightly below average (by 1–2 °C) in the western and southern territories. In March, precipitation was sparse, with less than 10 mm in a wide inner region of Russia encompassing the eastern part of the Central, the western part of the Near Volga and the northern part of the Southern Okrugs. Rainfall increased in April and exceeded the LTA in the southern half of Russia. While this precipitation helped to improve soil moisture conditions, it also slowed the progress of the sowing campaign of spring crops, which had just started in the warmer southern regions. The phenological development of winter crops is advanced in the southern regions. The mild thermal conditions in March and the rainfall of April were beneficial for winter wheat growth after a long dry period. However, except for the western parts of the Southern and North-Caucasus Okrugs, these improved conditions are deemed to have been insufficient to compensate for the poor conditions experienced during autumn and winter.

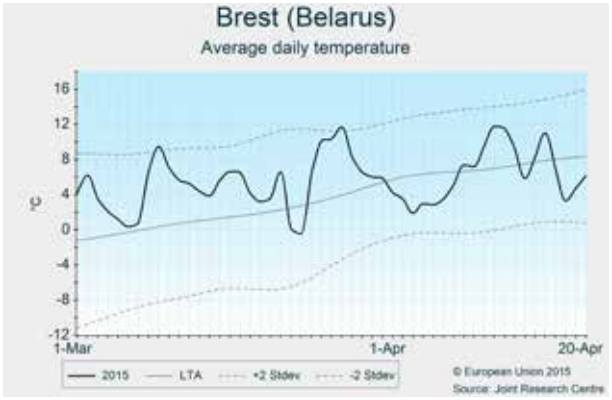
Belarus

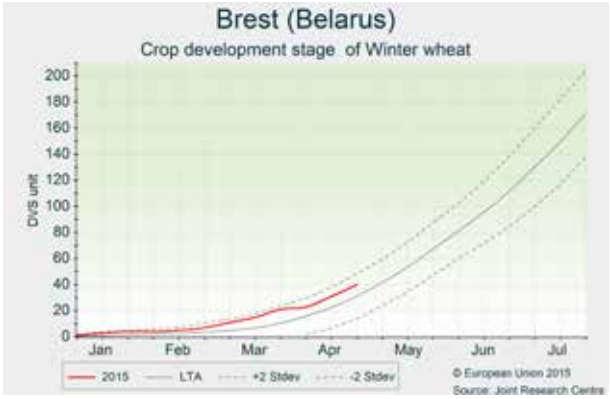
Advanced crop development

Temperatures remained above the LTA. Precipitation was around average or slightly below. Winter wheat presents advanced development and the yield outlook is positive.

In Belarus, thermal conditions remained about 3 °C above the LTA, as has been the case during the whole winter. Average maximum temperatures during the review period (1 March–20 April) are among the highest recorded in our database. Cumulated active temperatures (base temperature 0 °C) since 1 January are also well above the LTA, albeit considerably lower than last year's near-record levels.

Precipitation since the beginning of March was slightly lower than usual in south-western provinces such as Grodno, Brest and Gomel, and close to average in the rest of the country. Therefore across the country, soil water availability is not yet a concern. Since the beginning of the year, simulated soil moisture for winter wheat has been close to average. Winter cereals present advanced development and a good start to biomass accumulation, as indicated by our models and remote sensing indicators. Some rainy days during the beginning of April may have locally hampered the sowing of spring barley. Mild temperatures were beneficial for sprouting and emergence. Therefore the overall outlook is positive; trends and average values have been used to forecast yields at this early stage.





3.4 Maghreb

Morocco, Algeria and Tunisia

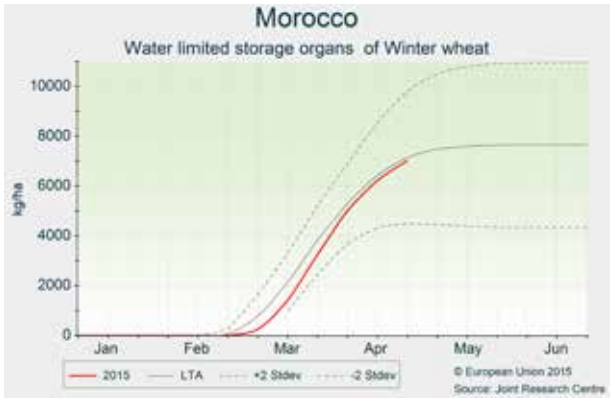
Positive and negative conditions, mixed outlook

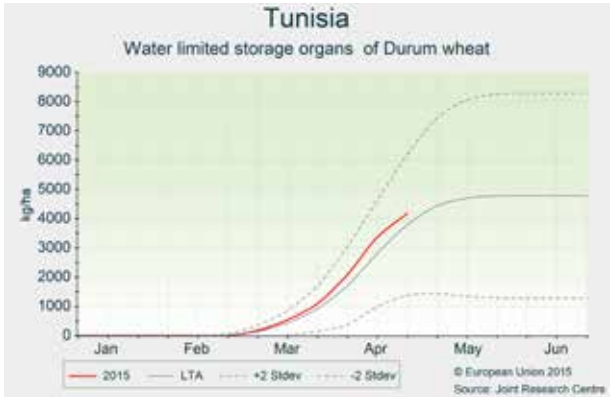
A dry April in all three countries, especially in Tunisia. Temperatures were warmer than average in all three countries. Modelled soil moisture indicators show adequate (but falling) levels of water availability across the region. Overall, conditions were mixed in Morocco, and possibly worse than suggested by model indicators. Conditions were more positive in Algeria and Tunisia, though further rainfall will be needed to maintain this positive outlook.

Morocco experienced little rainfall throughout most of March and April, with the only significant rainfall event occurring at the end of March. It is not clear whether this March rainfall event will have been sufficient to replenish soil moisture levels (although model indicators would suggest that this is the case, and modelled grain growth appears to be improving). The warmer-than-average first half of April is likely to have compounded the negative effects of the reduced rainfall levels.

Algeria experienced much better rainfall throughout the season, but also had very little rainfall in April. Model indicators would suggest that soil moisture levels, which have remained high for much of the season so far, are now approaching average levels for the time of year. April was also warmer than average, and again this would be expected to compound the negative effect of reduced rainfall in April.

Tunisia had almost no rainfall in April. Agriculture in the Maghreb is characterised by winter rain, followed by a drier spring and summer, and so this drop in rainfall is to some degree expected. However, the accumulated April rainfall (to date) in Tunisia's agricultural areas was the lowest it has been in the past 30 years. Model indicators suggest good grain growth (so far), but this appears to have started to level off.





4. Crop yield forecasts

Country	TOTAL WHEAT t/ha					TOTAL BARLEY t/ha				
	2014	2015	Avg 5yrs	%15/14	%15/5yrs	2014	2015	Avg 5yrs	%15/14	%15/5yrs
EU-28	5.84	**5.66**	5.46	-3.2	+3.5	4.89	**4.71**	4.60	-3.6	+2.5
AT	5.92	**5.39**	5.26	-8.9	+2.5	5.80	**5.27**	5.20	-9.2	+1.3
BE	9.41	**8.92**	8.75	-5.2	+2.0	9.30	**8.86**	8.66	-4.8	+2.3
BG	4.19	**4.08**	3.91	-2.5	+4.3	4.00	**3.86**	3.74	-3.6	+3.2
CY	-	**-**	-	-	-	1.63	**1.62**	1.83	-0.9	-11.4
CZ	6.50	**5.66**	5.47	-12.8	+3.5	5.64	**4.68**	4.60	-16.9	+1.9
DE	8.63	**8.05**	7.64	-6.7	+5.5	7.35	**6.63**	6.45	-9.8	+2.7
DK	7.46	**7.26**	7.04	-2.6	+3.1	5.95	**5.73**	5.60	-3.8	+2.2
EE	3.99	**3.48**	3.33	-12.8	+4.4	3.64	**2.99**	2.99	-17.9	-0.0
ES	2.99	**3.19**	3.13	+6.7	+1.9	2.49	**2.83**	2.80	+13.9	+1.3
FI	3.85	**3.74**	3.63	-3.0	+2.8	3.18	**3.54**	3.34	+11.1	+5.7
FR	7.35	**7.25**	7.04	-1.4	+3.0	6.65	**6.56**	6.37	-1.3	+3.1
GR	3.08	**2.91**	2.87	-5.4	+1.4	3.05	**2.86**	2.96	-6.4	-3.6
HR	4.14	**5.25**	4.79	+27.0	+9.6	3.82	**4.83**	4.12	+26.5	+17.2
HU	4.71	**4.20**	4.20	-10.7	+0.2	4.45	**4.01**	3.96	-9.8	+1.3
IE	9.99	**8.94**	8.90	-10.6	+0.4	8.00	**7.75**	7.66	-3.1	+1.2
IT	3.81	**3.85**	3.82	+1.1	+0.8	3.79	**3.68**	3.69	-3.1	-0.3
LT	4.56	**4.07**	4.07	-10.9	+0.0	3.80	**3.22**	3.22	-15.5	-0.0
LU	6.13	**6.40**	5.98	+4.4	+7.1	-	**-**	-	-	-
LV	3.75	**3.61**	3.58	-3.7	+0.8	3.56	**2.71**	2.87	-23.7	-5.3
MT	-	**-**	-	-	-	-	**-**	-	-	-
NL	9.11	**8.83**	8.80	-3.1	+0.3	6.75	**6.58**	6.43	-2.6	+2.3
PL	4.91	**4.44**	4.30	-9.7	+3.2	4.05	**3.71**	3.56	-8.5	+4.2
PT	1.77	**1.53**	1.43	-13.4	+7.0	2.18	**1.51**	1.57	-30.8	-4.2
RO	3.52	**3.37**	3.20	-4.2	+5.4	3.30	**3.08**	2.95	-6.6	+4.3
SE	6.80	**6.26**	5.92	-8.1	+5.6	4.78	**4.67**	4.56	-2.3	+2.4
SI	5.23	**4.93**	5.01	-5.8	-1.6	4.85	**4.45**	4.48	-8.3	-0.7
SK	5.36	**4.31**	4.31	-19.6	+0.2	4.70	**3.78**	3.68	-19.5	+2.7
UK	8.62	**8.08**	7.64	-6.3	+5.8	6.51	**6.04**	5.90	-7.1	+2.4

Country	SOFT WHEAT t/ha					DURUM WHEAT t/ha				
	2014	2015	Avg 5yrs	%15/14	%15/5yrs	2014	2015	Avg 5yrs	%15/14	%15/5yrs
EU-28	6.07	**5.89**	5.68	-3.0	+3.7	3.36	**3.28**	3.25	-2.4	+1.0
AT	5.98	**5.43**	5.30	-9.2	+2.5	4.78	**4.62**	4.51	-3.2	+2.5
BE	9.41	**8.92**	8.75	-5.2	+2.0	-	**-**	-	-	-
BG	4.20	**4.09**	3.92	-2.6	+4.3	3.20	**3.36**	3.12	+5.0	+7.6
CY	-	**-**	-	-	-	-	**-**	-	-	-
CZ	6.50	**5.66**	5.47	-12.8	+3.5	-	**-**	-	-	-
DE	8.64	**8.06**	7.64	-6.7	+5.5	6.51	**5.70**	5.52	-12.5	+3.2
DK	7.46	**7.26**	7.04	-2.6	+3.1	-	**-**	-	-	-
EE	3.99	**3.48**	3.33	-12.8	+4.4	-	**-**	-	-	-
ES	3.04	**3.34**	3.30	+9.8	+1.2	2.67	**2.32**	2.15	-13.0	+8.3
FI	3.85	**3.74**	3.63	-3.0	+2.8	-	**-**	-	-	-
FR	7.48	**7.38**	7.15	-1.3	+3.2	5.20	**5.08**	5.15	-2.2	-1.3
GR	3.31	**2.99**	3.04	-9.8	-1.6	2.96	**2.87**	2.79	-3.0	+3.0
HR	4.14	**5.25**	4.79	+27.0	+9.6	-	**-**	-	-	-
HU	4.71	**4.21**	4.20	-10.7	+0.1	4.55	**4.08**	4.01	-10.3	+1.8
IE	9.99	**8.94**	8.90	-10.6	+0.4	-	**-**	-	-	-
IT	5.16	**5.44**	5.35	+5.5	+1.7	3.17	**3.14**	3.13	-1.1	+0.1
LT	4.56	**4.07**	4.07	-10.9	+0.0	-	**-**	-	-	-
LU	6.13	**6.40**	5.98	+4.4	+7.1	-	**-**	-	-	-
LV	3.75	**3.61**	3.58	-3.7	+0.8	-	**-**	-	-	-
MT	-	**-**	-	-	-	-	**-**	-	-	-
NL	9.11	**8.83**	8.80	-3.1	+0.3	-	**-**	-	-	-
PL	4.91	**4.44**	4.30	-9.7	+3.2	-	**-**	-	-	-
PT	1.77	**1.53**	1.43	-13.4	+7.0	-	**-**	-	-	-
RO	3.52	**3.37**	3.20	-4.2	+5.4	-	**-**	-	-	-
SE	6.80	**6.26**	5.92	-8.1	+5.6	-	**-**	-	-	-
SI	5.23	**4.93**	5.01	-5.8	-1.6	-	**-**	-	-	-
SK	5.36	**4.31**	4.31	-19.6	+0.2	-	**-**	-	-	-
UK	8.62	**8.08**	7.64	-6.3	+5.8	-	**-**	-	-	-

Country	SPRING BARLEY t/ha					WINTER BARLEY t/ha				
	2014	2015	Avg 5yrs	%15/14	%15/5yrs	2014	2015	Avg 5yrs	%15/14	%15/5yrs
EU-28	4.14	**4.09**	4.01	-1.2	+2.1	5.91	**5.57**	5.42	-5.8	+2.8
AT	4.68	**4.25**	4.41	-9.2	-3.7	6.67	**6.13**	5.87	-8.2	+4.4
BE	-	-	-	-	-	9.30	**8.86**	8.66	-4.8	+2.3
BG	-	-	-	-	-	4.00	**3.86**	3.74	-3.6	+3.2
CY	-	-	-	-	-	1.63	**1.62**	1.83	-0.9	-11.4
CZ	5.60	**4.65**	4.56	-16.9	+2.0	5.73	**4.77**	4.68	-16.8	+1.8
DE	5.98	**5.54**	5.64	-7.2	-1.7	7.73	**6.95**	6.70	-10.1	+3.8
DK	5.88	**5.61**	5.52	-4.5	+1.7	6.26	**6.22**	5.98	-0.5	+4.1
EE	3.64	**2.99**	2.99	-17.9	-0.0	-	-	-	-	-
ES	2.58	**2.90**	2.86	+12.4	+1.3	1.91	**2.47**	2.42	+29.2	+1.9
FI	3.18	**3.54**	3.34	+11.1	+5.7	-	-	-	-	-
FR	6.10	**6.22**	6.04	+1.9	+3.0	6.88	**6.70**	6.49	-2.7	+3.1
GR	-	-	-	-	-	3.05	**2.86**	2.96	-6.4	-3.6
HR	-	-	-	-	-	3.82	**4.83**	4.12	+26.5	+17.2
HU	3.89	**3.56**	3.56	-8.4	-0.0	4.67	**4.20**	4.13	-10.0	+1.8
IE	7.50	**7.16**	7.09	-4.5	+1.0	9.30	**8.94**	8.80	-3.9	+1.6
IT	-	-	-	-	-	3.79	**3.68**	3.69	-3.1	-0.3
LT	3.80	**3.22**	3.22	-15.5	-0.0	-	-	-	-	-
LU	-	-	-	-	-	-	-	-	-	-
LV	3.56	**2.71**	2.87	-23.7	-5.3	-	-	-	-	-
MT	-	-	-	-	-	-	-	-	-	-
NL	6.75	**6.58**	6.43	-2.6	+2.3	-	-	-	-	-
PL	3.82	**3.58**	3.43	-6.2	+4.5	4.67	**4.19**	4.06	-10.4	+3.1
PT	-	-	-	-	-	2.18	**1.51**	1.57	-30.8	-4.2
RO	2.23	**2.42**	2.27	+8.3	+6.4	3.68	**3.38**	3.26	-8.1	+3.6
SE	4.71	**4.60**	4.52	-2.4	+1.9	6.41	**6.17**	5.60	-3.7	+10.3
SI	-	-	-	-	-	4.85	**4.45**	4.48	-8.3	-0.7
SK	4.59	**3.74**	3.65	-18.6	+2.5	5.13	**3.94**	3.82	-23.2	+3.1
UK	6.02	**5.73**	5.51	-4.8	+3.9	7.25	**6.57**	6.55	-9.4	+0.3

Country	GRAIN MAIZE t/ha					RYE t/ha				
	2014	2015	Avg 5yrs	%15/14	%15/5yrs	2014	2015	Avg 5yrs	%15/14	%15/5yrs
EU-28	7.93	**7.22**	7.00	-9.0	+3.0	4.22	**3.70**	3.58	-12.4	+3.5
AT	10.79	**10.49**	10.13	-2.8	+3.6	4.87	**4.35**	4.26	-10.6	+2.2
BE	10.50	**11.24**	10.98	+7.0	+2.3	-	-	-	-	-
BG	7.07	**5.90**	5.71	-16.6	+3.2	2.00	**1.95**	1.78	-2.4	+9.9
CY	-	-	-	-	-	-	-	-	-	-
CZ	7.74	**7.77**	7.58	+0.4	+2.5	5.37	**4.83**	4.69	-10.1	+2.9
DE	10.69	**9.83**	9.99	-8.0	-1.6	6.12	**5.36**	5.26	-12.4	+1.9
DK	-	-	-	-	-	6.13	**5.93**	5.64	-3.3	+5.1
EE	-	-	-	-	-	3.22	**2.58**	2.58	-20.0	-0.0
ES	11.24	**11.10**	10.86	-1.3	+2.2	1.72	**2.06**	2.05	+19.4	+0.2
FI	-	-	-	-	-	3.01	**2.83**	2.83	-6.0	+0.0
FR	10.38	**9.33**	9.27	-10.1	+0.7	4.90	**5.01**	4.90	+2.1	+2.1
GR	11.96	**11.01**	11.53	-8.0	-4.5	2.10	**1.94**	2.10	-7.6	-7.8
HR	8.11	**6.74**	6.12	-16.9	+10.0	-	-	-	-	-
HU	7.74	**6.54**	5.93	-15.5	+10.2	2.91	**2.48**	2.52	-14.8	-1.8
IE	-	-	-	-	-	-	-	-	-	-
IT	9.71	**9.16**	9.04	-5.7	+1.3	-	-	-	-	-
LT	-	-	-	-	-	2.25	**2.20**	2.16	-2.1	+2.2
LU	-	-	-	-	-	-	-	-	-	-
LV	-	-	-	-	-	3.57	**2.89**	2.87	-19.1	+0.6
MT	-	-	-	-	-	-	-	-	-	-
NL	13.06	**11.41**	11.41	-12.6	-0.0	-	-	-	-	-
PL	6.59	**6.66**	6.40	+1.1	+4.1	3.19	**2.91**	2.74	-8.8	+6.2
PT	8.44	**8.48**	8.02	+0.5	+5.8	0.94	**0.88**	0.87	-6.6	+0.7
RO	4.50	**3.93**	3.74	-12.8	+5.0	-	-	-	-	-
SE	-	-	-	-	-	6.51	**6.06**	5.74	-6.9	+5.5
SI	9.09	**8.02**	7.81	-11.8	+2.6	-	-	-	-	-
SK	7.93	**6.77**	6.35	-14.7	+6.5	3.51	**3.29**	3.20	-6.2	+2.8
UK	-	-	-	-	-	-	-	-	-	-

Country	TRITICALE t/ha					RAPE AND TURNIP RAPE t/ha				
	2014	2015	Avg 5yrs	%15/14	%15/5yrs	2014	2015	Avg 5yrs	%15/14	%15/5yrs
EU-28	4.52	**4.25**	4.12	-6.0	+3.2	3.57	**3.35**	3.13	-6.4	+6.9
AT	5.90	**5.21**	5.15	-11.7	+1.2	3.75	**3.33**	3.26	-11.3	+2.1
BE	-	**-**	-	-	-	4.80	**4.44**	4.33	-7.5	+2.6
BG	3.26	**3.16**	2.86	-3.1	+10.6	2.70	**2.54**	2.43	-6.0	+4.4
CY	-	**-**	-	-	-	-	**-**	-	-	-
CZ	5.08	**4.55**	4.51	-10.5	+0.8	3.89	**3.35**	3.17	-13.9	+5.6
DE	7.11	**6.22**	6.10	-12.4	+2.0	4.48	**4.27**	3.79	-4.8	+12.7
DK	5.55	**5.40**	5.29	-2.7	+2.1	3.88	**3.88**	3.67	-0.1	+5.6
EE	-	**-**	-	-	-	2.08	**1.78**	1.78	-14.6	-0.0
ES	2.33	**2.44**	2.26	+4.5	+7.6	2.44	**2.49**	2.14	+2.1	+16.3
FI	-	**-**	-	-	-	1.48	**1.42**	1.42	-4.3	+0.0
FR	5.22	**5.35**	5.30	+2.6	+1.0	3.67	**3.42**	3.37	-6.8	+1.5
GR	-	**-**	-	-	-	-	**-**	-	-	-
HR	3.63	**3.83**	3.73	+5.5	+2.6	3.10	**3.02**	2.64	-2.7	+14.1
HU	3.96	**3.63**	3.55	-8.3	+2.3	3.19	**2.70**	2.54	-15.3	+6.2
IE	-	**-**	-	-	-	-	**-**	-	-	-
IT	-	**-**	-	-	-	2.40	**2.40**	2.36	+0.0	+1.7
LT	3.29	**2.99**	2.99	-9.1	-0.0	2.00	**2.05**	2.03	+2.4	+0.9
LU	-	**-**	-	-	-	-	**-**	-	-	-
LV	2.72	**2.82**	2.71	+3.7	+4.2	2.00	**2.14**	2.11	+7.1	+1.6
MT	-	**-**	-	-	-	-	**-**	-	-	-
NL	-	**-**	-	-	-	-	**-**	-	-	-
PL	4.02	**3.71**	3.52	-7.8	+5.2	3.39	**3.04**	2.75	-10.4	+10.6
PT	1.48	**1.26**	1.21	-15.1	+4.0	-	**-**	-	-	-
RO	3.73	**3.40**	3.31	-8.9	+2.8	2.55	**2.35**	2.14	-8.0	+9.4
SE	5.92	**5.34**	5.12	-9.9	+4.3	3.38	**3.04**	2.84	-10.1	+7.1
SI	-	**-**	-	-	-	-	**-**	-	-	-
SK	3.65	**3.23**	3.23	-11.7	-0.2	3.34	**2.58**	2.50	-22.8	+3.3
UK	4.45	**4.04**	3.99	-9.3	+1.2	3.71	**3.68**	3.50	-0.9	+5.1

Country	SUGAR BEETS t/ha					POTATO t/ha				
	2014	2015	Avg 5yrs	%15/14	%15/5yrs	2014	2015	Avg 5yrs	%15/14	%15/5yrs
EU-28	76.06	**72.86**	70.59	-4.2	+3.2	33.35	**32.81**	31.90	-1.6	+2.9
AT	74.23	**69.92**	69.98	-5.8	-0.1	33.60	**32.87**	31.80	-2.2	+3.4
BE	81.75	**77.92**	76.08	-4.7	+2.4	54.00	**45.67**	46.85	-15.4	-2.5
BG	-	**-**	-	-	-	14.00	**14.64**	14.45	+4.6	+1.3
CY	-	**-**	-	-	-	-	**-**	-	-	-
CZ	61.04	**63.88**	60.18	+4.7	+6.1	26.97	**28.34**	26.79	+5.1	+5.8
DE	84.36	**73.00**	71.15	-13.5	+2.6	47.42	**45.21**	43.55	-4.7	+3.8
DK	52.50	**60.13**	61.14	+14.5	-1.7	41.60	**40.03**	39.58	-3.8	+1.1
EE	-	**-**	-	-	-	-	**-**	-	-	-
ES	92.21	**92.47**	85.82	+0.3	+7.8	31.89	**31.40**	30.14	-1.5	+4.2
FI	38.21	**39.24**	36.32	+2.7	+8.0	27.93	**25.92**	25.92	-7.2	+0.0
FR	90.89	**89.95**	87.57	-1.0	+2.7	44.16	**44.38**	43.21	+0.5	+2.7
GR	-	**-**	-	-	-	24.51	**25.61**	25.47	+4.5	+0.5
HR	63.60	**55.19**	51.27	-13.2	+7.6	17.00	**17.61**	16.68	+3.6	+5.6
HU	66.37	**60.08**	54.11	-9.5	+11.0	26.27	**26.08**	23.85	-0.7	+9.4
IE	-	**-**	-	-	-	39.00	**35.31**	33.52	-9.5	+5.4
IT	57.01	**58.05**	57.25	+1.8	+1.4	26.20	**25.49**	25.13	-2.7	+1.4
LT	53.00	**50.78**	50.78	-4.2	+0.0	18.00	**16.18**	16.18	-10.1	+0.0
LU	-	**-**	-	-	-	-	**-**	-	-	-
LV	-	**-**	-	-	-	18.00	**17.61**	17.61	-2.1	+0.0
MT	-	**-**	-	-	-	-	**-**	-	-	-
NL	87.40	**81.26**	79.10	-7.0	+2.7	45.00	**44.87**	43.88	-0.3	+2.3
PL	54.80	**55.39**	52.20	+1.1	+6.1	23.60	**21.75**	21.56	-7.8	+0.9
PT	-	**-**	-	-	-	19.73	**18.52**	17.10	-6.2	+8.3
RO	40.99	**39.00**	34.63	-4.9	+12.6	16.73	**15.13**	14.63	-9.6	+3.4
SE	59.77	**60.17**	58.96	+0.7	+2.1	32.51	**31.78**	32.14	-2.2	-1.1
SI	-	**-**	-	-	-	-	**-**	-	-	-
SK	61.04	**59.18**	54.28	-3.0	+9.0	-	**-**	-	-	-
UK	72.49	**69.63**	67.70	-3.9	+2.9	30.01	**41.06**	38.24	+36.8	+7.4

Country	SUNFLOWER t/ha				
	2014	2015	Avg 5yrs	%15/14	%15/5yrs
EU-28	2.13	**2.02**	1.92	-5.1	+5.2
AT	2.82	**2.67**	2.58	-5.2	+3.6
BE	-	**-**	-	-	-
BG	2.40	**2.25**	2.11	-6.4	+6.2
CY	-	**-**	-	-	-
CZ	2.27	**2.38**	2.35	+4.8	+1.4
DE	2.30	**2.13**	2.13	-7.5	-0.1
DK	-	**-**	-	-	-
EE	-	**-**	-	-	-
ES	1.18	**1.11**	1.13	-6.2	-1.7
FI	-	**-**	-	-	-
FR	2.37	**2.36**	2.32	-0.4	+1.6
GR	3.43	**2.68**	2.50	-21.7	+7.4
HR	2.40	**2.60**	2.41	+8.2	+7.9
HU	2.63	**2.63**	2.31	+0.1	+14.1
IE	-	**-**	-	-	-
IT	2.20	**2.19**	2.22	-0.3	-1.3
LT	-	**-**	-	-	-
LU	-	**-**	-	-	-
LV	-	**-**	-	-	-
MT	-	**-**	-	-	-
NL	-	**-**	-	-	-
PL	-	**-**	-	-	-
PT	0.89	**0.64**	0.63	-27.8	+1.5
RO	2.13	**1.80**	1.71	-15.4	+5.1
SE	-	**-**	-	-	-
SI	-	**-**	-	-	-
SK	2.66	**2.39**	2.30	-10.2	+4.0
UK	-	**-**	-	-	-

NB: Yields are forecast for crops with more than 10 000 ha per country.
Sources: 2009–15 data come from DG Agriculture and Rural Development short-term outlook data (dated March 2015, received on 13.4.2015), Eurostat Eurobase (last update: 23.2.2015) and EES (last update: 11.2.2015).
2015 yields come from MARS Crop Yield Forecasting System (output up to 20.4.2015).

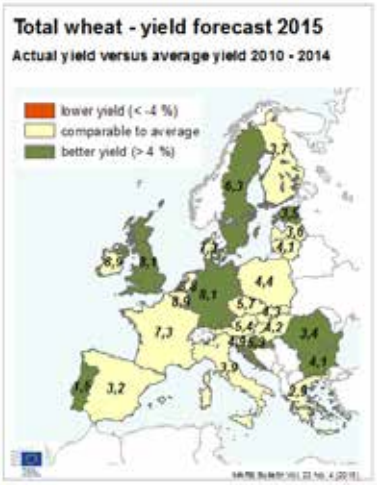
Country	WHEAT (t/ha)				
	2014	2015	Avg 5yrs	%15/14	%15/5yrs
BY	3.71	**3.56**	3.32	-4.0	+7.2
DZ	1.48	**1.72**	1.60	+16.4	+8.0
MA	1.71	**1.94**	1.65	+13.2	+17.5
TN	2.09*	**2.25**	1.91	+7.7	+18.0
TR	2.4	**2.65**	2.60	+10.3	+1.9
UA	4.03	**3.45**	3.28	-14.4	+5.1

Country	BARLEY (t/ha)				
	2014	2015	Avg 5yrs	%15/14	%15/5yrs
BY	3.5	**3.40**	3.13	-3.0	+8.5
DZ	1.18	**1.77**	1.39	+50.0	+27.3
MA	0.97	**1.19**	1.10	+22.5	+7.7
TN	1.41	**1.73**	1.20	+22.6	+43.9
TR	2.31	**2.63**	2.56	+13.7	+2.6
UA	3.1	**2.57**	2.42	-17.2	+6.2

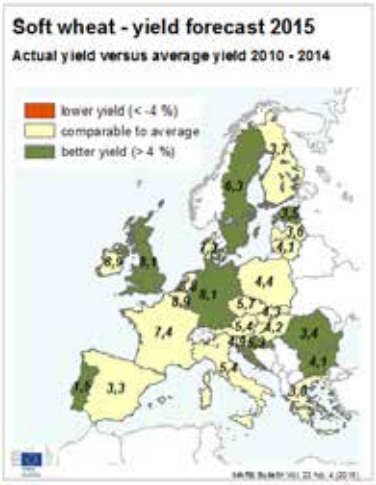
Country	GRAIN MAIZE (t/ha)				
	2014	2015	Avg 5yrs	%15/14	%15/5yrs
BY	5.38	**5.90**	5.56	+9.6	+6.0
DZ	-	**-**	-	-	-
MA	-	**-**	-	-	-
TN	-	**-**	-	-	-
TR	9.07	**8.92**	7.98	-1.6	+11.8
UA	6.02	**5.60**	5.60	-7.0	+0.0

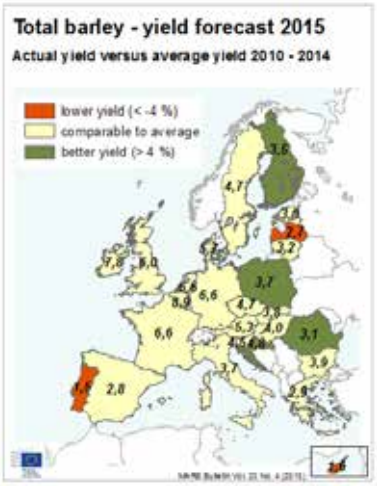
NB: Yields are forecast for crops with more than 10 000 ha per country.
Sources: 2010–14 data come from FAO, Turkish Statistical Office, PSD-online, INRA Maroc, MinAGRI Tunisia and DSASI Algeria.
*2014 yields come from MARS Crop Yield Forecasting System as reported values were not available.
2015 yields come from MARS Crop Yield Forecasting System (output up to 20.4.2015).

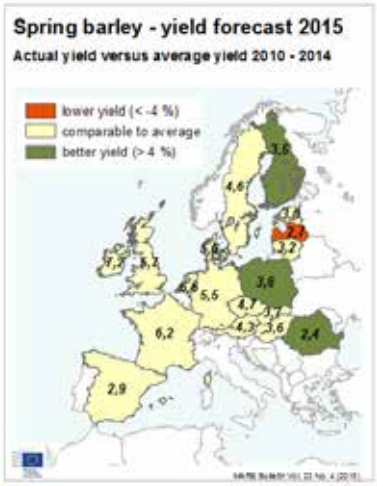
Yield maps

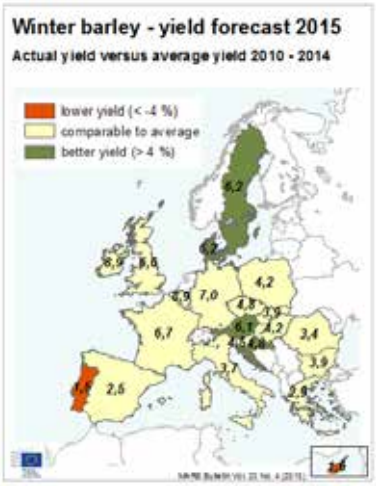

Total wheat - yield forecast 2015
Actual yield versus average yield 2010 - 2014
lower yield (< -4 %)
comparable to average
better yield (> 4 %)


Durum wheat - yield forecast 2015
Actual yield versus average yield 2010 - 2014
lower yield (< -4 %)
comparable to average
better yield (> 4 %)

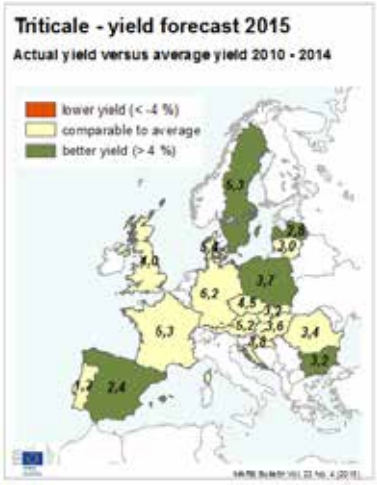

Soft wheat - yield forecast 2015
Actual yield versus average yield 2010 - 2014
lower yield (< -4 %)
comparable to average
better yield (> 4 %)


Total barley - yield forecast 2015
Actual yield versus average yield 2010 - 2014
lower yield (< -4 %)
comparable to average
better yield (> 4 %)


Spring barley - yield forecast 2015
Actual yield versus average yield 2010 - 2014
lower yield (< -4 %)
comparable to average
better yield (> 4 %)


Winter barley - yield forecast 2015
Actual yield versus average yield 2010 - 2014
lower yield (< -4 %)
comparable to average
better yield (> 4 %)

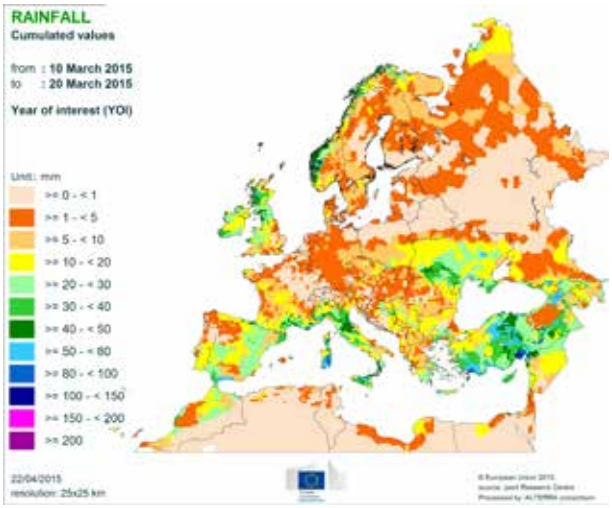

Rye - yield forecast 2015
Actual yield versus average yield 2010 - 2014
lower yield (< -4 %)
comparable to average
better yield (> 4 %)

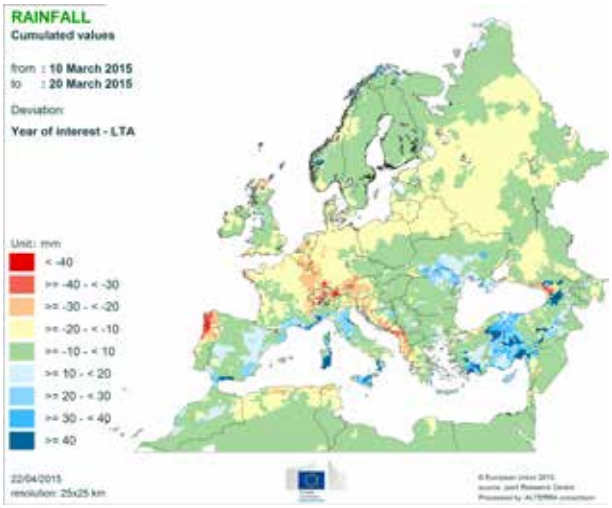

Triticale - yield forecast 2015
Actual yield versus average yield 2010 - 2014
lower yield (< -4 %)
comparable to average
better yield (> 4 %)

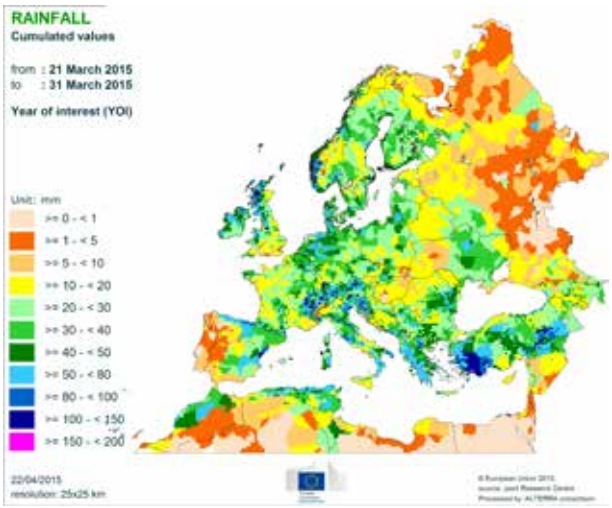

Rape and turnip - yield forecast 2015
Actual yield versus average yield 2010 - 2014
lower yield (< -4 %)
comparable to average
better yield (> 4 %)

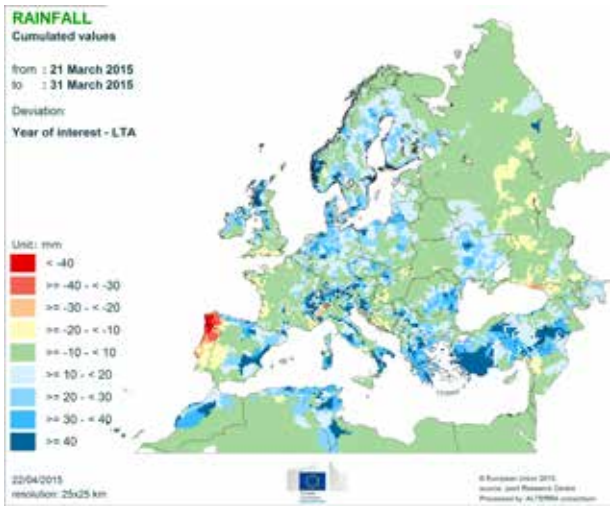
5. Atlas

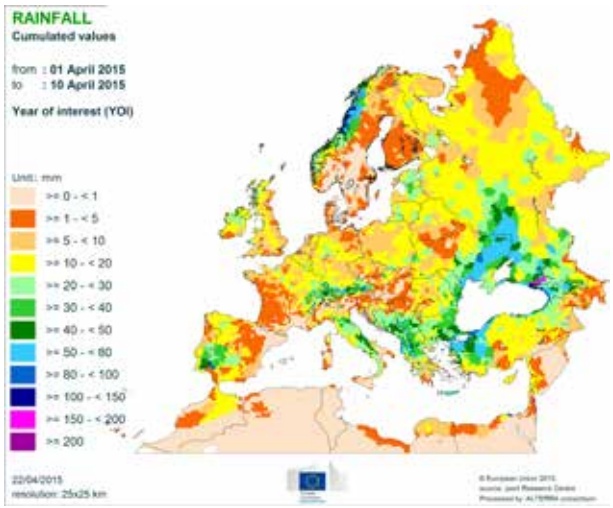
Precipitation

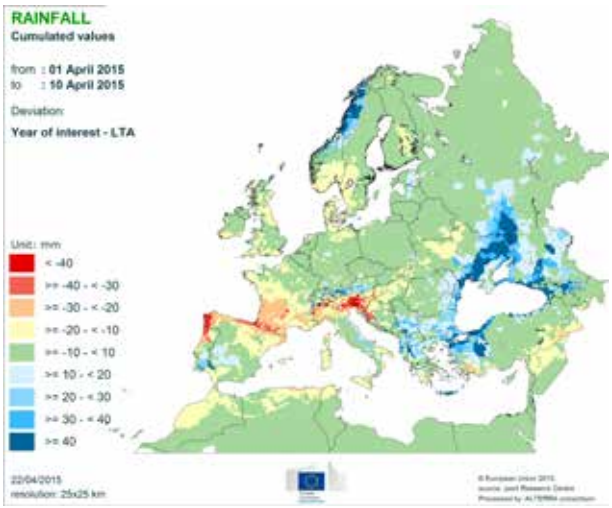


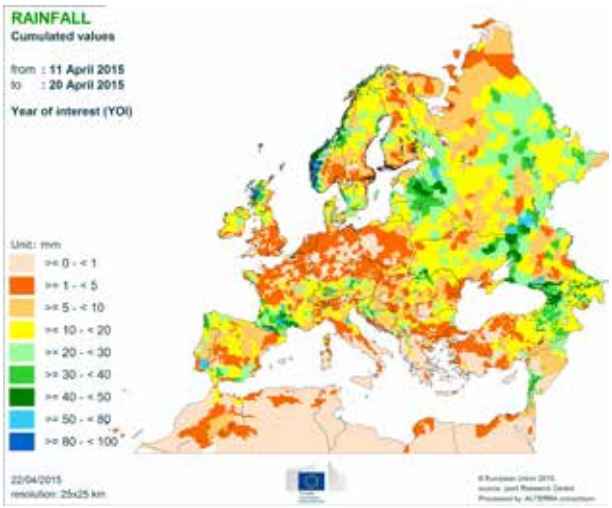


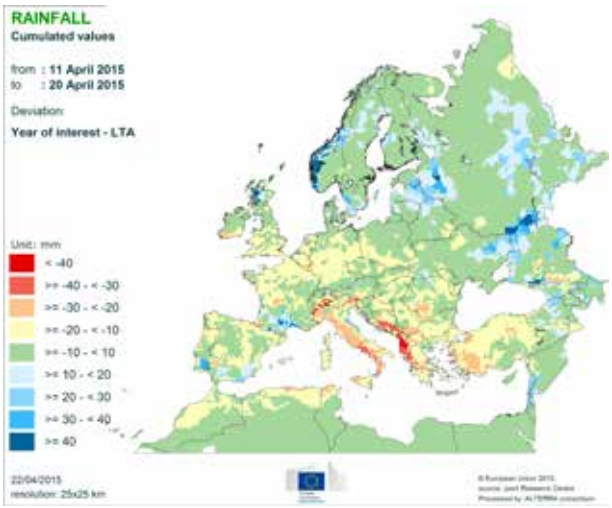


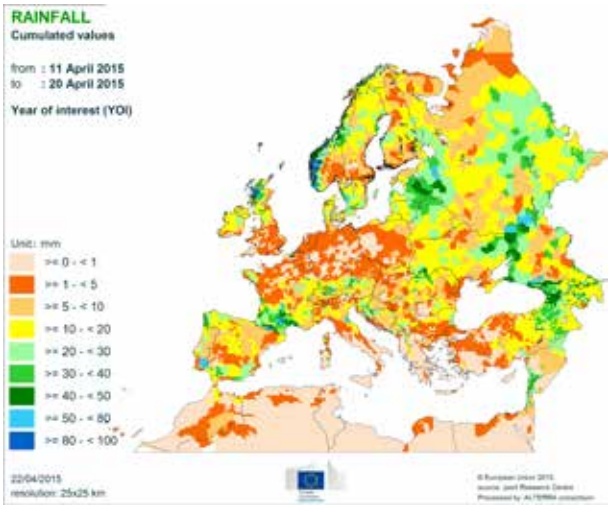


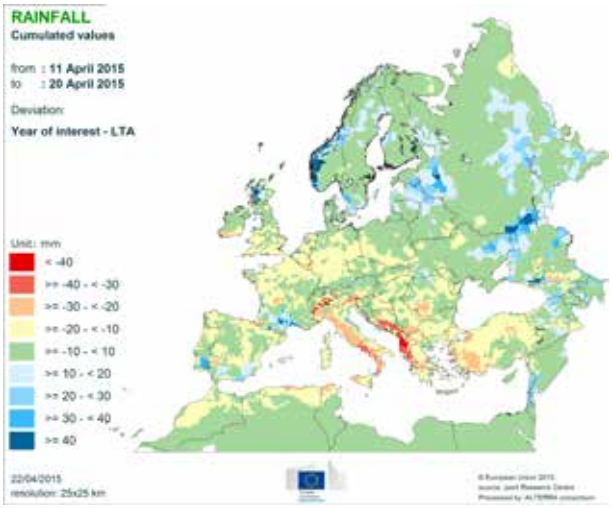




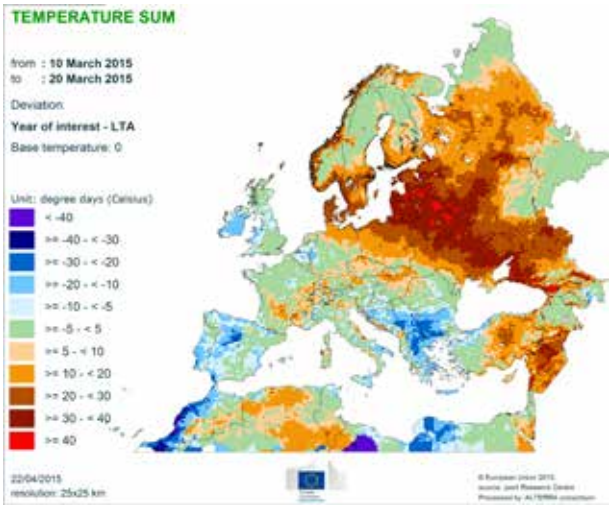


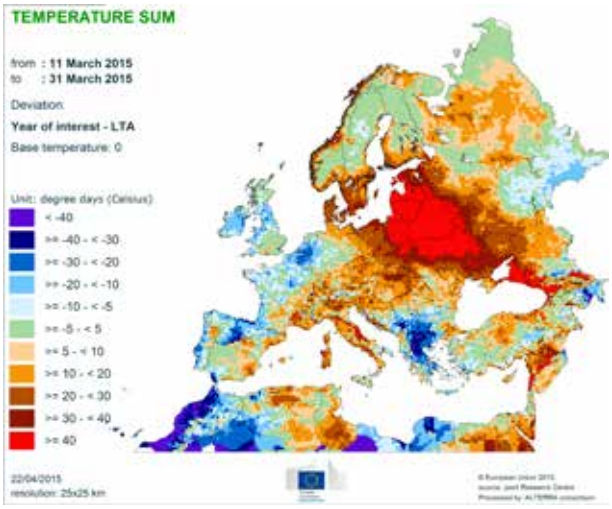


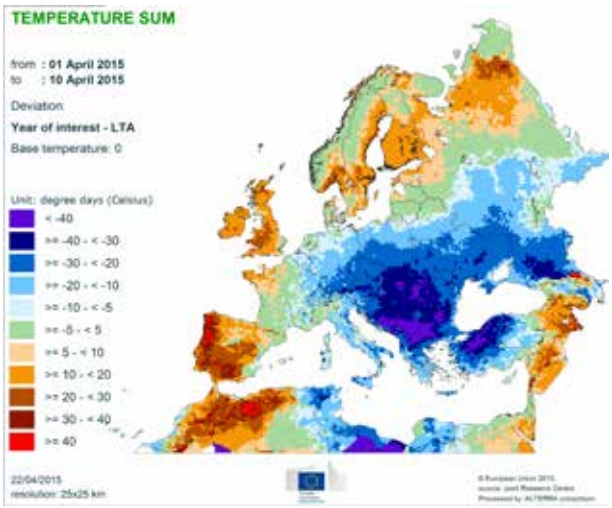


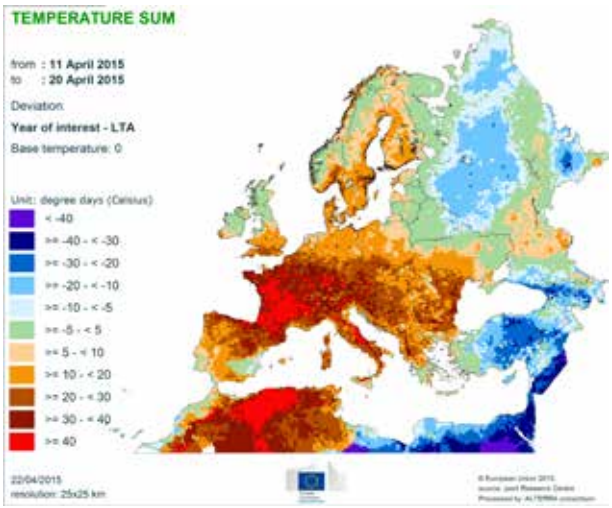


Temperature regime

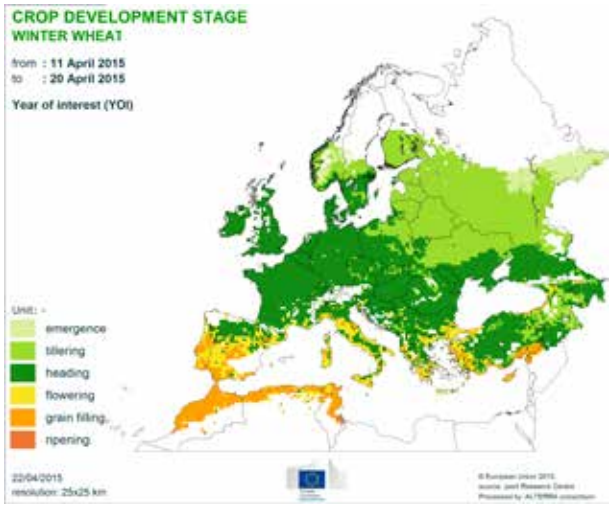


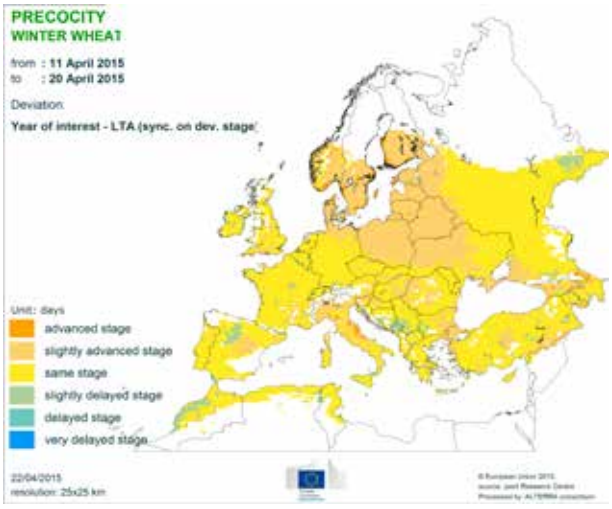


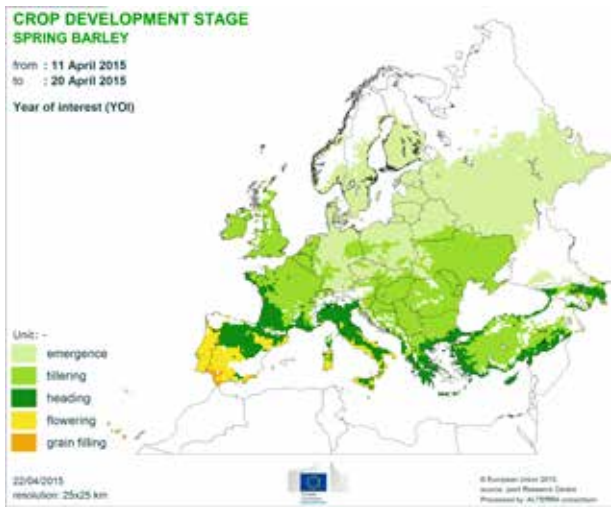


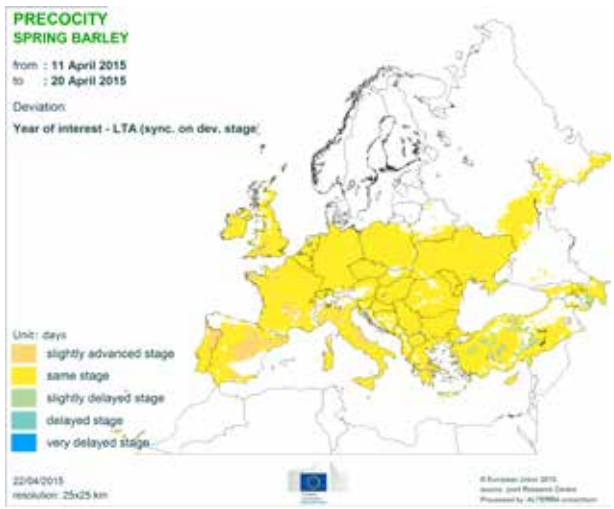


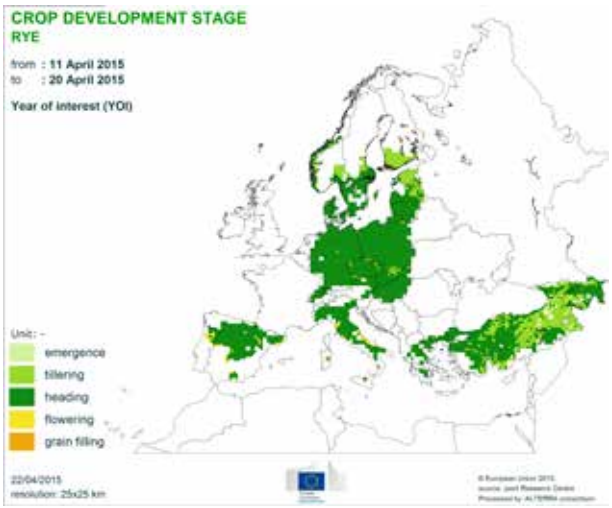
Crop development stages and precocity

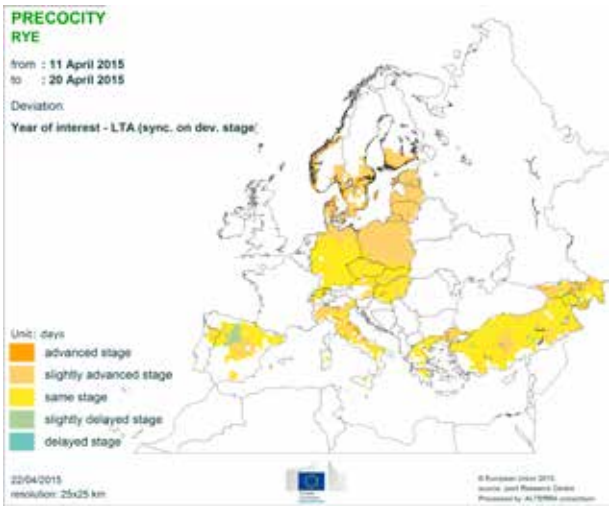


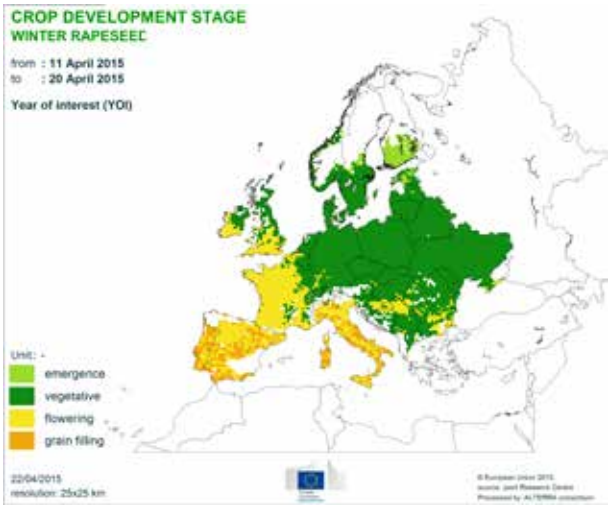


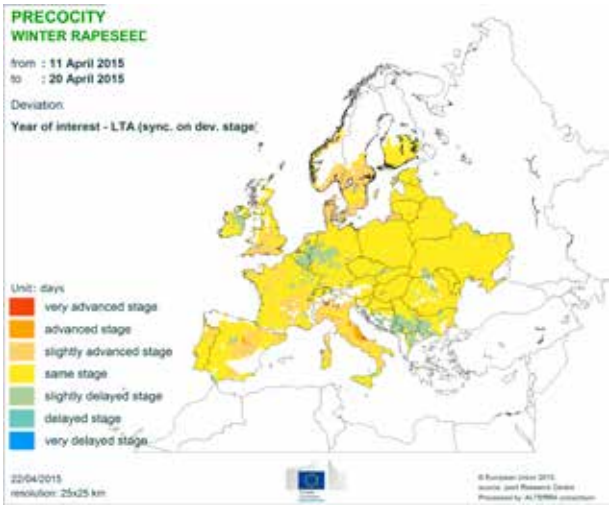




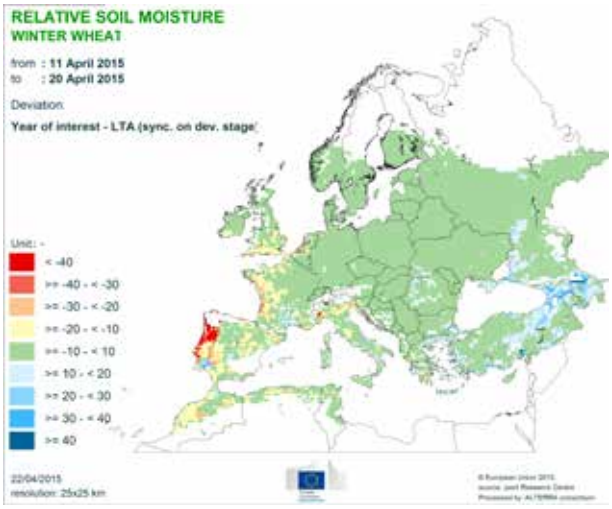


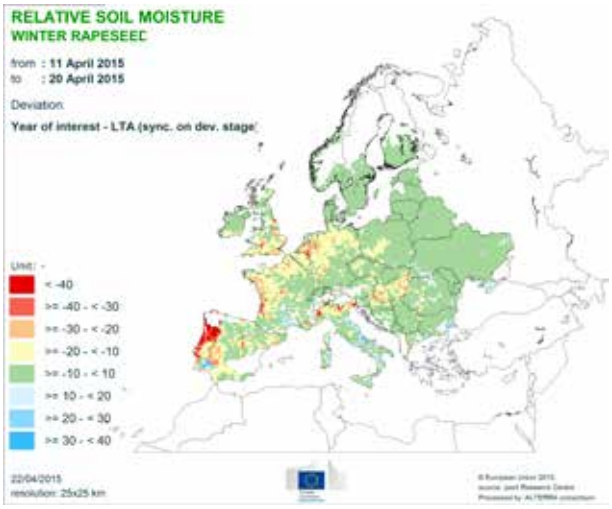






Relative soil moisture





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Date	Publication	Reference
26 Jan	Agromet analysis	Vol. 23 No 1
23 Feb	Agromet analysis	Vol. 23 No 2
23 Mar	Agromet analysis and yield forecast	Vol. 23 No 3
27 Apr	Agromet analysis, remote sensing and yield forecast	Vol. 23 No 4
26 May	Agromet analysis, remote sensing, yield forecast and pasture analysis	Vol. 23 No 5
22 Jun	Agromet analysis, remote sensing, yield forecast, pasture update and rice analysis	Vol. 23 No 6
27 Jul	Agromet analysis, remote sensing, and yield forecast,	Vol. 23 No 7
24 Aug	Agromet analysis, remote sensing and yield forecast	Vol. 23 No 8
21 Sep	Agromet analysis, remote sensing, yield forecast and pasture update	Vol. 23 No 9
26 Oct	Agromet analysis, remote sensing, yield forecast and rice analysis	Vol. 23 No 10
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14 Dec	Agromet analysis	Vol. 23 No 12

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B. Baruth, I. Biavetti, A. Bussay, A. Ceglar, G. De Sanctis, S. Garcia Condado, S. Karetsos, R. Lecerf, R. Lopez, J. Rodriguez, L. Seguini, A. Toreti, M. Van den Berg, M. Van der Velde.

Reporting support
G. Mulhern

Editing
B. Baruth, M. Van den Berg, S. Niemeyer

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Contact
JRC–IES-MARS / AGRI4CAST
info-agri4cast@jrc.ec.europa.eu

*MARS stands for Monitoring Agricultural Resources

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The long-term average (LTA) used within this bulletin as a reference is based on an archive of data covering 1975–2013.

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